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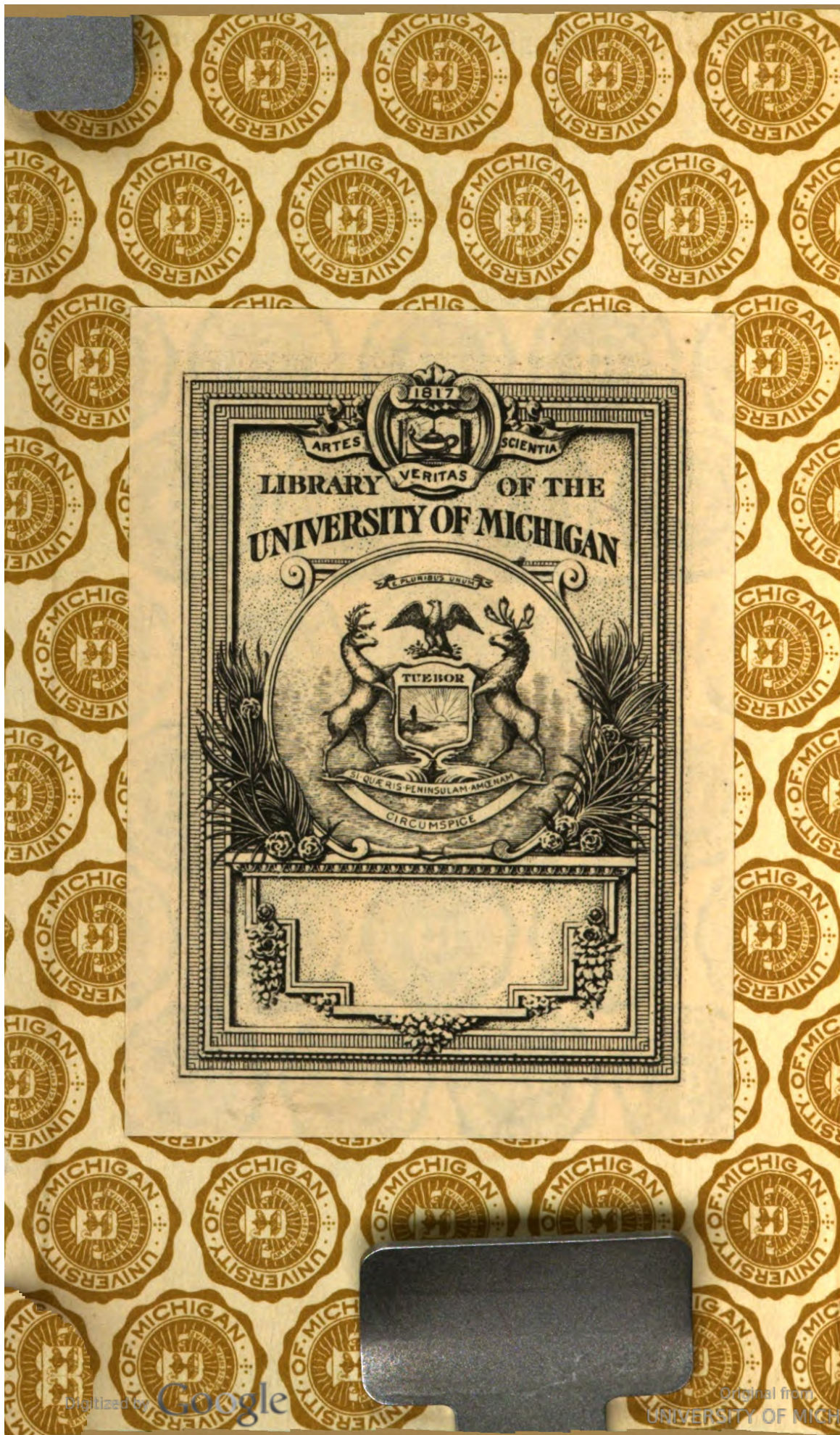
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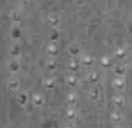
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THE "COLTS" OF AMBRACIA

BY

OSCAR RAVEL



THE AMERICAN NUMISMATIC SOCIETY
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THE "COLTS" OF AMBRACIA

BY OSCAR E. RAVEL

The Thesprotian town of Ambracia in Epirus (*Ἀμβρακία*) was situated where the town of Arta now stands. Its territory extended all round the northern and western side of the Gulf of Ambracia (now Gulf of Arta). On the southeast, it was bounded by the territory of the Amphilochians and on the west by the Laguna Tsukalia, or probably the small river Oropos (Luro). Inland, we do not know how far it extended.¹

The city itself was situated at the mouth of the river Arachthos (*Ἀραχθός*), and at the head of a gulf eighty stadia from the sea.² Above the town of which some ancient walls still exist, stands a rocky hill—the Acropolis, and from its height the plain could be dominated and one had an extensive view over the sea.

The harbor was provided with dikes and dams (*κλειστός λιμήν*) and was probably situated at the mouth of the river,³ which vessels could navigate as far as the town.⁴

The mythical founder of Ambracia was Ambrax, son of Thesprotos,⁵ but according to Dionysios of Halikarnassos, the eponymous founder was the son of Dexamenos, son of Heracles.⁶

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The town was colonized by Corinth about 630 B.C. Strabo says Gorgos, son of Kypselos, was the leader of the Corinthian expedition and became the first tyrant of Ambracia. His son, Periander II, succeeded him but was soon deposed by the citizens who then instituted a democratic form of government.⁷

By some authors, the historical founder of Ambracia is called Torgos, Gorgias or Gorgos,⁸ but as his name is inscribed in full on a beautiful coin (pl. XI, 127), we may be sure that it was really Gorgos (ΓΟΡΓΟΣ).⁹

Owing to her very favorable situation, Ambracia was the natural port for Epirus and the interior, and the medium for commerce with Italy and Sicily. Practically all the trade of the country passed through her harbor, so that she grew in wealth and soon became one of the most flourishing of the Corinthian colonies.

The first we know of her in history is that in 480 B.C. she joined with Corinth in the war against Xerxes, sending five hundred hoplites and seven vessels.¹⁰

Corinth through hostility for Aegina established a close friendship with Athens, which she supported, in order that, through her, Aegina should be humiliated. We have no direct proofs that Ambracia was with Athens against Aegina, but knowing she was very faithful to her mother-city, we may suppose she helped Corinth.

When, in 456 B.C., Aegina became tributary to Athens, the dangerous rival to the Corinthian influence in Peloponnesus was eliminated.^{10a}

In 432 B.C., Ambracia took an active part, on the Corinthian side, in the war between Corinth and Corcyra and supplied a fleet of 27 vessels.¹¹

At first Ambracia invaded the neighbouring town of Argos and expelled the Amphilochians.¹² They, with the help of their allies, the Akarnanians, later recaptured the town.¹³

During the second part of the Peloponnesian war the Ambracians again besieged Argos, but did not succeed in taking it and were obliged to retreat. In 426 B.C., with the help of the Lakedemonian Eurylochos, they again tried to take that town, but the Akarnanians had received important help from the Athenians and directed by the Athenian general Demosthenes, they defeated the Ambracians at Olpai (Ὀλπαι), and destroyed their army completely.¹⁴ Thucydides says that during the Peloponnesian war no other Greek town suffered so great a calamity within so short a time. After this defeat, a truce of 100 years was concluded between Ambracia and the Akarnanians.¹⁵

Ambracia, always faithful to her mother-city and to Sparta, in the last period of the Peloponnesian war (ca. 415–414) sent troops to help Syracuse then besieged by the Athenians.

From this time she seems to have lived in

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peace and there followed the most flourishing epoch of her history. About 342, Alexander of Epirus, made Ambracia one of his capitals and sailed thence to Italy ¹⁶ (ca. 334 B.C.). In 340 B.C., she entered into the defensive league with Athens against Philip of Macedon, but after the battle of Chaeronea in 338 B.C., Philip established a Macedonian garrison in the town.

As the object of the present study is the coinage of the Ambracian mint, and as this was closed under Philip,¹⁷ the events posterior to 338 B.C. do not concern us. These historical facts are cited merely to facilitate examination of the events that may have left a mark upon the coinage.

The coinage of Ambracia is almost exclusively staters of Corinthian types and standard; some small denominations are recorded as belonging to this mint, owing to the initial A under the Pegasos, but it is more likely that they should be attributed to some other mint. The small coins in the British Museum, of Roman standard,¹⁸ like all the late staters, do not belong to this mint.

In the Museum of Berlin, there are two small coins, probably drachms, of archaic style, inscribed A under the Pegasos and therefore considered as being of Ambracia. These pieces are the only instance of small coins in all the series. To support this attribution, there is only the initial A, but as this may be the initial of other mints too, we prefer to leave these coins among those of "uncertain mints."

The present study treats the series of beautiful Ambracian staters. These most remarkable coins of Corinthian types are very carefully executed. They show much variety in composition, and the symbols are often of great interest. Like the Corinthian staters, those of Ambracia were known everywhere as pegasi or "colts" (πῶλοι), and circulated freely as a kind of international currency. The name colts was given these staters owing to the constant reiteration of the principal type, the flying Pegasos, popularly known as the 'colt,'¹⁹ and this type was considered as a kind of guaranty of good alloy and weight. A circumstance that seems to justify the great success of the pegasi is that, although many thousand pegasi are recorded, so far no plated example has been met.

Ambracia's trade with Italy and Sicily was very important, and this explains why the greatest number of Ambracian colts have been found in these countries. Their abundance in Sicilian hoards seems to indicate that, as the coinage of didrachms was very scanty in Sicily, they were normally used, with the other pegasi, in the transactions where didrachms, or ten-litrae pieces, were needed.

Although hoards of pegasi have been numerous in Sicily, it is greatly to be regretted that not a single detailed record has been made of them. Even when the other coins found with them have

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been carefully described and published, the colts have been completely neglected. This is due to several reasons—a general contempt for them, the very erroneous idea that they are such common coins that it is not worth while wasting time over them and the scarcity of books of reference dealing with them.^{19a}

That the pegasi of Ambracia are not common is amply proved by the following catalogue. The coins recorded are by no means all that exist, but as almost all the coins of the principal public and private collections and all the coins illustrated in the sale catalogues have been noted, it is surprising how few there are. Very important museums, such as Athens and Naples, have only half a score of specimens in their trays. Very few series of Greek coins show such a large number of presumably unique varieties.

I am particularly indebted to Mr. E. T. Newell, President of the American Numismatic Society, who has helped me with his valuable advice, and, especially, to Mr. Sydney P. Noe, Secretary of the American Numismatic Society, who was kind enough to read over and correct the proofs, and to help me with friendly criticism so that I have modified in some cases my possibly over-bold views, clashing with opinions which still hold the field.^{19b}

I have to express my gratitude also to my friend M. Michel P. Vlasto, with whom I discussed

many points and who has constantly assisted me with his knowledge.

I owe my sincerest thanks to all the keepers of public cabinets and to all owners of private collections who have aided in the bringing together of the casts of the coins described in the present study. The following are the public and private cabinets that have kindly sent me casts:

Athens (National Numismatic Museum),
 Berlin (Kaiser Friedrich Museum),
 Brussels (Cabinet des Médailles),
 Cambridge (Fitzwilliam Museum),
 Copenhagen (Royal Numismatic Cabinet),
 Glasgow (Hunterian Collection),
 Gotha (Münzkabinett d. Herz. Hauses),
 London (British Museum),
 Milan (Castello Sforzesco),
 Munich (Münzkabinett),
 Naples (Museo Nazionale),
 Paris (Cabinet des Médailles),
 Palermo (Museo Nazionale),
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 Vienna (Kunsthistorisches Hofmuseum),
 Mr. W. Gedney Beatty, New York,
 Conte de Brandis, Venice,
 Comte Chandon de Briailles, Chaource,
 Mr. G. Empedocles, Athens,
 Col. Godefroy, Paris,

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Mr. Paul Mathey, Paris,
Mr. R. E. Hart, Blackburn,
Mr. Hoyt Miller, Long Island,
Mr. E. T. Newell, New York,
Prof. Sir Charles Oman, Oxford, Eng.
Dr. Petzalis, Athens,
Dr. E. P. Robinson, Newport, R. I.,
Dr. Bernhard, St. Moritz,
J. Mavrogordato, Eden Bridge, Eng.

Many other public cabinets and private collections had no specimens of Ambracia in their trays, or were unable to send me casts.

SYMBOLS

On a great number of the staters of Corinthian type there are symbols in the field of the reverses. Some of these are common to all mints and generally represent a variety of simple or conventionalized objects such as animals, insects, plants, or articles associated with religious ceremonies, etc.

Others of more complicated nature are found chiefly on the Ambracian colts. They sometimes represent human figures of comparatively large size—at times real "tableaux de genre."

Head, speaking of the symbols found on the staters of Corinth corresponding to those illustrated on *pl. XIX, a, b, c, d, e, f*, says that they

are doubtless magistrates' signets, and that those found on the series with the magistrates' initials stand for mint-officials of lower rank, who were replaced at frequent intervals, perhaps annually, while the superior magistrate remained in office for a longer period of time.²⁰

Prof. Oman repeats this explanation but applies the theory of mint-officials changing annually to the great variety of symbols found on the early staters without initials.²¹

Babelon follows Head's opinion.²²

The writer's idea is that it is a mistake to generalize on the basis of this theory. It may be that the symbols on the late Corinthian coins with initials ΑΑ-ΑΥ-ΑΡ-ΔΙ-Δ-Γ-Ι-Ν²³ have some connection with the mint-officials, but this possibility is no more than conjecture that has still to be proved. If the symbols are really magistrates' signets, it can only be ascertained through a careful examination of a large number of die-combinations.

There is a class of staters studied by Sir Charles Oman in his paper on the Fifth century coins of Corinth that presents a strong objection to Head's opinion.

Fourteen reverses with different symbols are found coupled with two obverses so similar that only a very slight difference in the position of the Pegasos head and fore-legs permits one to see that they are not of the same die. These dies (pl.

XIX, *A* and *B*) are apparently contemporary, and this is proved since the same reverses are found coupled with both.

The reverses found coupled with *A* have the following symbols:

1. Five dolphins. (Cf. Babelon Tr., pl. CCX, 10.)
2. Three dolphins. Berlin.
3. Two dolphins. (Cf. Num. Chron., 1909, pl. XXIX, 30.)
4. Dolphin and eagle's head, pl. XIX, *a*.
5. Dolphin and bunch of grapes with two leaves, pl. XIX, *b*.
6. Dolphin and cock. (Cf. Cat. Weber, 3693.)
7. Figure with bow to left and Δ I. Cf. Ratto, 1927, pl. XXXIX, 146.
8. Little figure standing to r., pl. XIX, *c*.
9. Dolphin and figure standing to r. (Cf. Sotheby, 1921, pl. XIII, 278.)

The reverses found coupled with *B* have the following symbols:

10. Dolphin and thymiaterion, pl. XIX, *d*.
11. Dolphin and palmette, pl. XIX, *e*.
12. Same, but different die. (Cf. Corolla Num., pl. XI, 15.)
13. Herakles with bow to r. and TI; Berlin.
14. Dolphin and figure to l., pl. XIX, *f*.
15. Figure with bow to l. and Δ I. (Cf. Egger, 1908, pl. XIII, 477.) Same die as 7.

16. Dolphin and bunch of grapes with two leaves.
 (Cf. Num. Chr., 1909, pl. XXIX, 32.)
 Same die as 5.

I have found 42 staters from these die-combinations. Two of these 14 different reverses, Nos. 5 and 7, are found coupled with both *A* and *B*. Only two, Nos. 1 and 5, are found coupled with other obverse-dies. The first is found with an obverse depicting a standing Pegasos (cf. Babelon, pl. CCX, 11) and the second with a flying Pegasos of later style. (Cf. Ratto, 1927, pl. XXXIX, 1438.)

This group of colts shows a concrete sequence of dies, where No. 1 represents the link with the previous issues and No. 5 the link with the following. We can therefore infer that the 14 reverses are all contemporary. But the above mentioned staters have been placed by Professor Oman in different periods, ranging from 414 to 394 B.C., Nos. 1 and 2 in the "Circle of dolphins class," Nos. 11 and 12 in the "Palmette and dolphin class" and the others in Period IX (Dolphin and varying annual symbols).

If we accept this classification, we are obliged to assume that the two dies *A* and *B* have been in constant use for 20 years, which is certainly not possible.

If the symbols stand for the magistrates' badges, there must have been at least 13 magistrates in the mint of Corinth, during the

use of the two dies that we have seen were employed at the same time, and this is certainly very difficult to believe.

Even if we only take into consideration the symbols we find on the reverses coupled with die *A* alone, we should find, during the use of one single die, at least nine magistrates, as there are nine different symbols.

On the other hand if we consider only the dies belonging to Professor Oman's Period IX, the eleven symbols we find would represent the mint-marks, or badges of magistrates that changed *at least* once a year. Therefore the two dies that we have seen were used at the same time would have been employed constantly during eleven years. From what we know of the technique of ancient coining²⁶ this is most improbable too. No die could stand hard hammering for such a long time; a duration of two years would certainly be more than we can expect from a die under normal circumstances.^{26a}

Studying a large number of colts of Corinth, of which I have collected a considerable number of casts, with a view to establishing their chronological sequence, it has been found that the above case is not an exception. On the contrary we find very often a large number of reverses with differing symbols, coupled with the same obverse die. This is also met with in the Ambracian series. For instance, coins Nos. 125 to 132 have

all the obverses from the same die, coupled with eight reverses with different symbols. These coins are certainly contemporary and belong to the same issue; in this case, too, we should have eight magistrates in charge at the same time, and this is even more astonishing in a mint as small as Ambracia.

We also find cases sometimes that at first glance seem just the reverse. Several symbols are repeated for a long time and on reverses of quite different style. For instance, we find the kerykeion on coins of Ambracia of the second and third period. There are ten dies (P 10, 11, 22, 23, 26, 27, 29, 31, 32, 33) all with the same symbol, and their issue is certainly wide apart in time. How can we explain that in the same mint in the one case we have a single magistrate for a long period and in the other eight magistrates during the short life-time of a single die?

From these considerations we should be justified in concluding that the symbols on the pegasi cannot represent the signets of mint-officials or magistrates, and that their meaning must be quite different.

One class of symbols is found repeated on the coins of the same mint, such as the *Club* on those of Dyrrhachium, the *Achelous' head* on the coins of Stratos, the *Bow* on those of Alyzia. In these cases, owing to their constant reiteration, they are not considered as magistrates' signets, but

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as a kind of *παράσημον*²⁴ of the town. It is evident that they imply a religious meaning, being the attributes of gods whose cult was greatly in honour there. But these symbols were by no means used at the above mentioned mints exclusively; we find the *Club*, the *Achelous' head* and the *Bow* symbols also on the colts of Ambracia (No. 29, pl. III, No. 89, pl. XII, No. 54, pl. V). If these symbols have a religious meaning on the colts of Dyrrhachium, Stratos and Alyzia, why should they not have the same meaning on the other colts?

Our hypothesis for explaining the symbols is that they were at first merely ornamental devices, meant to embellish the composition and to break the bareness of the field. Later, attributes of gods were chosen with the same object, but with the supplementary purpose of putting the issue under the protection of a tutelary divinity. Once the fashion of the symbols became established, they must have been considered a kind of customary accessory to the Athena's head, and the die-cutters gave free course to their imagination and a great variety of objects were chosen, but chiefly from among the numerous *ἀποτρόπαια* of recognized protective power.

The symbols on the colts were for a long time religious and, after the usual attributes of gods, we find totems of all kinds, gods themselves or reproductions of well-known statues of divinities

or heroes and even mythological scenes or allusions to some legendary or historical event. This class of symbols should be considered as a kind of accessory type, added to the standard Corinthian type.

We can follow this evolution, step by step, on the colts of Ambracia.

On the first archaic issues we find no symbols (Nos. 1 to 7, pl. I), but on the following issue, which we shall show hereafter was probably struck at Corinth, we find an ivy-branch (Nos. 8 to 11, pl. I). The nature of the symbol and its decorative disposition leave no doubt that it was meant to embellish the composition.

The first symbol that follows the ivy-branch is a kerykeion, and we have already noted that this is found repeated for a long time in periods II and III (pl. II, III, IV, and V). The kerykeion marks the first step in the evolution of the original purpose, which was simply decorative. The choice was natural; this symbol is not only a decorative device, but has its own particular meaning. In fact what could have been found more appropriate for an issue of coins than the golden rod of Hermes, the herald of peaceful intercourse among people and the symbol of trade?

Later, however, only the religious meaning survived and, as the kerykeion was the attribute of Hermes, there were no reasons that those of the

other gods worshipped should not have been employed also as symbols. Thus we have the Club²⁹ of Herakles, the Kantharos of Dionysos, the Tripod of Apollo.

From these simple attributes we pass to the figures of divinities such as the flying Nike, a Satyr, an Eros (?), and later *local* gods and heroes—Arachthos, Gorgos and the Dolphin-rider—were taken for symbols. On some coins we even find *complete scenes*, like the girl playing at Kottabos and Ambrax watching the fight of the serpent with the tortoise.

It is therefore evident that the study of these symbols is of more interest than if they are considered as mint-marks or magistrates' signets only.

Adrien Blanchet saw the importance of the study of these symbols and in his paper "Représentations de statues sur les statères de Corinthe" concludes that the study of them may supply us with considerable archæological and chronological information.³⁰

In the present study great importance has therefore been given to the symbols and we have attempted to explain their meaning. Unfortunately we know very little about the local legends of Ambracia and consequently we can submit an interpretation in a few cases only. Many symbols, in spite of our endeavours, are incomprehensible and will perhaps remain puzzles until new archæological discoveries shall have furnished us with the necessary clues.

CHRONOLOGICAL CLASSIFICATION

The classification of the staters of Corinthian types has always been considered a very difficult task. In the introduction of the Catalogue of the British Museum for Corinth, Head says that few series of coins present greater difficulties. Prof. P. Gardner says that to arrange them accurately by date is impossible.³¹ The great uniformity of types, and the small differences of style, were the chief difficulties.

But as many other Greek series present the same peculiarity and have been carefully classified, we are justified in believing that there must be other reasons.

As a rule in all ancient coins the die with deep relief was fixed to the anvil, and used as a pile; the other die was used as a punch or trussel and received the blow. The die fixed to the anvil was the one which gave the more important side of the coin, or obverse; and the side from the punch die was the reverse. This last received the blows and therefore lasted a shorter time than the die fixed to the anvil, which accounts for the fact that generally the reverses are more numerous than the obverses.^{31a}

Although on the Corinthian staters the head of Athena,³² apparently the more important side of the coin, is on the reverse, the Pegasos is on the obverse; therefore it is the principal type.³³ On

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the earliest coins of Corinth we find the Pegasos on the obverse, and on the reverse only a kind of incuse pattern. Afterwards Athena's head took the place of the incuse device, while the flying-horse, the *παράσημον* of Corinth, remained on the obverse.³⁴

In all attempts at classification of the colts, the obverses, viz., the most important side of the coin, have been completely neglected, even in the best catalogues. Often they are not even illustrated and their descriptions are limited to "Pegasos flying r. or l." ^{34a} Modern authors, following this general habit, try to establish the chronological sequence of the types by studying the reverses only.

Although at first sight the obverses seem similar, they are by no means so nearly alike as it was generally supposed. If we study them closely, we are surprised to see how different they really are. If they look similar, it is a probability that they are closely related—that the coins either belong to the same issue or at least to the same period.

This uniformity of the obverses, which was the reason for their being neglected, is of great help in the study of the series.

In fact, it is obvious that it is much easier to perceive differences of design and style on artistic productions if they always reproduce the same object, than if this varies.

It is misleading to rely on style alone, and in the present study several cases confirm this.³⁵ Striking differences of style are to be found on coins of the same epoch, either because earlier types were copied intentionally, or because, in all epochs, there were clever and inferior engravers working together and therefore good and bad style.

In trying to establish the chronology of the colts of Ambracia,^{35a} we have followed the only really scientific system, that of the die-sequence, inaugurated by Regling and followed by Tudeer, Newell, Seltman and other modern numismatists.³⁶

The coinage of Ambracia is particularly interesting, as the dies interlace frequently. This fact permits us to establish a die-sequence that is almost continuous. Naturally there are missing links, but in this case stylistic considerations help greatly to bridge the interruptions.

Some die-combinations that we do not know may come to light, and these may change the sequence submitted herein and demand a "re-shuffling," but the present essay is only a modest attempt at the classification, and it should be considered as the first step to a more complete and exhaustive work.

The coinage has been divided into five chronological periods, taking into consideration the established die-sequence, comparisons of style and the available historical data.

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First Period—from 480 to 456 B.C. (Archaic style).

Second Period—from 456 to 426 B.C. (Transitional style).

Third Period—from 426 to 404 B.C. (Fine style).

Fourth Period—from 404 to 360 B.C. (Finest style).

Fifth Period—from 360 to 338 B.C. (Beginning of the decline).

Both Head³⁷ and Babelon agree in fixing the beginning of the coinage of Ambracia at 480 B.C., when Ambracia joined the war against Xerxes. Babelon supposes the first issue of coins to have been made to pay the Ambracian troops.³⁸

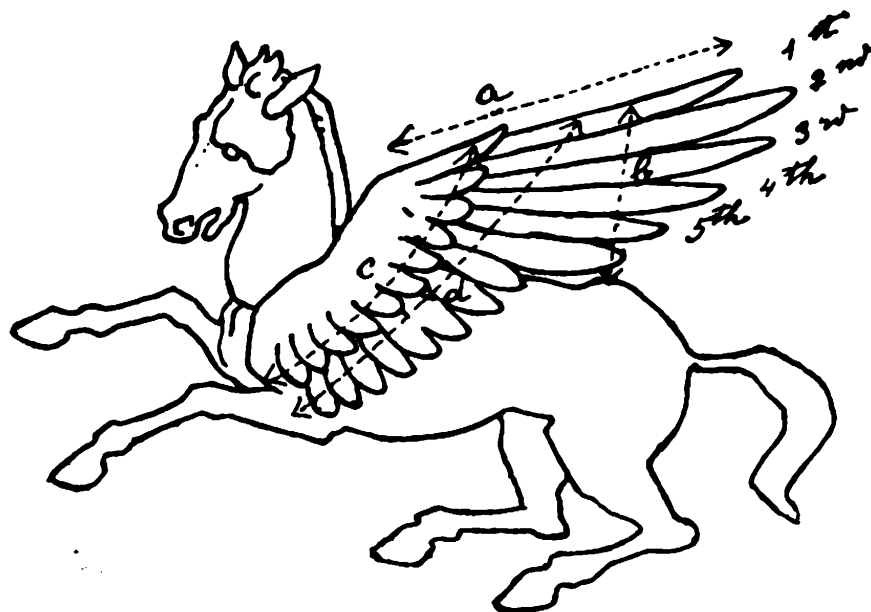
The second period begins with the fall of Aegina in 456 B.C. and ends with the defeat of Olpai.

The third period beginning with the truce of 100 years ends with the fall of Athens. The date of 360 B.C. closing the fourth period is only conjectural. The fifth period ends with the closing of the mint in 338 B.C.

The periods have been subdivided into groups, taking as a rule the obverses rather than the reverses into consideration. It would be impossible to establish groups or classes where obverses and reverses would exactly fit. Because of the concatenation of the dies several reverses from the same die are coupled with obverses of two groups. We do not fix any dating for the

groups as this would only be guess-work and consequently of very doubtful utility.

The system of labelling in the following catalogue is the same that has been adopted by C. T. Seltman in his "Athens, its History and Coinage." Each coin or die-combination has a progressive



a is called the "Edge of the wing"; *b*, the "Upper part of the wing"; *c*, the "Row of small feathers"; *d*, the "Row of long feathers." The numbering of the feathers begins from the top.

number; each obverse die has a progressive number following the letter A (Anvil-die). Each reverse a number following the letter P (Punch-die). Each recorded specimen of the same die-combination is lettered *a*, *b*, *c*, etc. Thus 76 *b* is

the specimen in the Cabinet des Médailles in Paris from the obverse die A 39 and the reverse P 51.

To show the complete die-sequence all the finest available coins have been illustrated on the plates; in this way it is easier to follow the interlacing of the dies. When two specimens complete each other, both have been illustrated. As all the coins were struck with loose dies, the relative position of the dies has been omitted.³⁹ The weight of each coin has been noted when available; the results of a Hill-Robinson frequency-table are indicated afterwards.

The wing of the Pegasos, being the part that shows the greatest variety in shape, is the essential feature of the obverse. An accurate description of it is therefore obligatory to recognize the different dies. As the terms employed may be wrongly interpreted, the cut on the preceding page is necessary.

CATALOGUE OF TYPES

I PERIOD, FROM 480 TO 456 B.C.

Group A

1 A 1. Pegasos bridled, the two bridle-reins visible, with curled wing, flying r. The upper part of the wing ⁴⁰ is composed of seven feathers. Head very long compared to the body. Beneath Pegasos, near l. hind-hoof, A.

P 1. Head of Athena r. wearing Corinthian helmet without neck-guard; hair in queue ending in a little knot. Eye in full face, the lips smiling. Around neck, a stringlike necklace. All within deep incuse square. **Pl. I.**

- a.* Berlin, grm. 8.51, 18 mm. (Prokesch-Osten).
- b.* London, grm. 8.45, 18 mm. (Cat. Weber, 3828).
- c.* Glasgow, Hunterian Collection, 18 mm.
- d.* The Hague (Six Coll.), grm. 7.05, 18 mm. (very poor).
- e.* Cat. Egger, 1908, 493, grm. 8.45, 18 mm.

2 *A 1.* From the same die.

P 2. Similar head of Athena but smaller. **Pl. I.**

- a.* O. Ravel, Marseilles, grm. 8.65, 17x19 mm. (Naville XII, 1926, 1310).
- b.* Col. Godefroy, grm. 8.30, 18 mm.

3 *A 2.* Similar Pegasos, single bridle-rein visible. A slightly larger.

P 3. Similar head of Athena r.; in higher relief, hair wavy on forehead. Necklace of beads. All within deep incuse square. **Pl. I.**

- a.* E. T. Newell, grm. 8.72, 20 mm.
- b.* Cat. de Sartiges, 293, 21 mm.
- c.* Hirsch XXV, 1909, 1144, grm. 8.51, 20 mm.

4 *A 3.* Same Pegasos, probably from the same hub, both reins visible. A placed nearer the fore-legs.

P 4. Similar head of Athena r., only very slight differences.

- a.* Naville I (Pozzi), 1740, grm. 8.45, 20 mm.

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5 A 4. Similar Pegasos flying r., the upper part of the wing composed of six feathers, two reins visible.

P 4. Same die. **Pl. I.**

- a. E. T. Newell, grm. 8.60, 19 mm.
- b. Berlin, 28633, grm. 7.99, 18x20 mm.
- c. Cat. Sambon, 1923 (Picard), 458, 20 mm.
- d. Naville VI, 1924 (Bement), 960, grm. 8.55, 19 mm.

6 A 5. A thinner Pegasos with wing less spread.

P 4. Same die. **Pl. I.**

- a. Palermo hoard, 983, grm. 8.35, 20 mm.
- b. Cambridge, McClean, 5096, grm. 8.38, 18 mm., pl. 185, 1.⁴¹
- c. Turin, 20 mm.

7 A 6. Pegasos flying r., the upper part of the wing composed of five feathers, beneath, A.

P 3. Same die. **Pl. I.**

- a. Copenhagen, grm. 8.54, 19 mm.
- b. von Gwinner, grm. 8.63, 20 mm. Dr. Ph. Lederer, Seltene Griech. Mün. der Samml. A. v. Gwinner, Berliner Münzblätter, 1916, taf. 2, 12.

Group B

8 A 7. Pegasos, bridled, with curled wing, flying r., the upper part of the wing composed of four feathers. The body is short and plump, head better proportioned; very high relief. Beneath, large archaic A.

P 5. Head of Athena r., wearing Corinthian helmet without neck-guard, grape cluster earring and necklace of beads. Hair in queue ending in a knot; to l., ivy-branch with three berries and two leaves, all within deep incuse square. **Pl. I.**

a. O. Ravel, Marseilles, grm. 8.50, 16 mm., ex Naville, I, 1741 (Pozzi coll.).

b. London, 2a, grm. 8.70, 17 mm.

9 *A 8.* Similar Pegasos r., differs from *A 7* in row of small feathers, in position of forelegs as well as in position of *A*.

P 5. Same die. **Pl. I.**

a. E. T. Newell, grm. 8.69, 17 mm.

b. London, grm. 8.26, 15x17 mm., B.M. Cat., pl. XXVII, 1.

c. London, 2, grm. 8.23, 15x17 mm.

d. Cat. Naville VI, 1924, 962 (Bement), grm. 8.62, 18 mm., ex Sotheby, 1916 (Headlam), 371.

e. Copenhagen, grm. 8.68, 17 mm.

f. Brussels, grm. 7.83 (very poor), 18 mm.

g. Comte Chandon de Briailles, grm. 8.20, 18 mm.

10 *A 8.* Same die.

P 6. Similar head to r., ivy-branch with larger leaves. **Pl. I.**

a. Gotha, grm. 8.73, 17 mm.

11 *A 9.* Similar Pegasos, but slightly larger. Upper part of the wing composed of five feathers.

P 6. Same die. **Pl. I.**

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- a.* Brussels, grm. 8.40, 17 mm.
- b.* Berlin (Prokesch-Osten), grm. 8.34, 18 mm.
- c.* Berlin (Imhoof-Blumer), grm. 8.03 (worn), 18x20 mm.
- d.* G. Empedocles, Athens, grm. 8.46, 18 mm. (ex Naville I, Pozzi, 1743).
- e.* G. Empedocles, grm. 8.55, 16x19 mm. (ex Naville I, Pozzi, 1742, and Egger, 1908, 494).
- f.* P. Mathey, Paris, grm. 8.50, 18 mm.
- g.* Cat. de Sartiges, 292, 18 mm.
- h.* Cat. Naville VI, 1923 (Bement), 961, grm. 8.33, 18 mm.

II PERIOD, FROM 456 TO 426 B.C.

Group A

12 A 10. Pegasos unbridled with curled wing flying l.; under head, archaic A, beneath, serpent coiled round land-tortoise and striking at it. This symbol is placed near r. hind-hoof, the tortoise's head towards the body of Pegasos.

P 7. Head of Athena l., wearing Corinthian helmet without neck-guard, hair falling loosely in long locks over the neck. On the top of the helmet stands a bull butting to l.; to l. in the angle of the die, A, sidewise; all within incuse square.

Pl. I.

- a.* Berlin, grm. 8.51, 20 mm. (Imhoof-Blumer).⁴²
- b.* Berlin, grm. 8.25, 15x24 mm. (Prokesch-Osten).
- c.* Cat. Naville I, 1920 (Pozzi), 1745, grm. 8.17, 19 mm.

13 *A 10.* From the same die.

P 8. Same head but slightly thinner, helmet longer, bull smaller, no letter visible.

a. The Hague (Six), grm. 7.30, 18x20 mm. (very poor).

14 *A 11.* Similar to the above; between the symbol and r. hind-leg a crosslike mark or letter.

P 9. Similar head of Athena l. but wearing neck-guard under Corinthian helmet. Bull standing with its hind-legs on the edge of the neck-guard, butting vertically downwards; to l., A, all within incuse square. **Pl. II.**

a. O. Ravel, Marseilles, grm. 8.15, 19 mm.

15 *A 11.* Same die.

P 8. Same die as 13. **Pl. II.**

a. Munich, grm. 8.66, 18x21 mm.

16 *A 11.* Same die.

P 10. Head of Athena l., wearing Corinthian helmet over neck-guard, long loose locks coming out from it. To r. kerykeion, all within incuse square; to l., A. **Pl. II.**

a. E. T. Newell, grm. 8.30, 18 mm.

b. Hirsch XXXIV, 1914, 408, grm. 8.20, 20 mm.

17 *A 12.* Pegasos as above, but neck and upper part of the wing longer, fore-legs more apart. The symbol is differently placed, the

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tortoise's head is to l., the serpent's head is under l. fore-hoof. No crosslike sign.

P 7. Same die as 12. **Pl. II.**

a. London, 17, grm. 8.50, 16x20 mm., B. M. Cat., pl. XXVII, 14. E. Babelon Tr., t. IV, p. 125, 267, pl. CCLXXX, 6.

b. Hirsch XXXI, 1912, 384, grm. 8.27, 21 mm.

18 *A* 12. Same die.

P 11. Similar head to *P* 10, but smaller, to l., *A*, to r. kerykeion, all within incuse square. **Pl. II.**

a. E. T. Newell, grm. 8.09, 18 mm.

19 *A* 13. Similar Pegasos, but wing smaller, symbol smaller and nearer the body.

P 11. Same die. **Pl. II.**

a. Berlin, grm. 8.35, 19 mm. (Imhoof-Blumer), Babelon Tr., t. IV, p. 126, 268.⁴³

b. Gotha, grm. 8.48, 18x22 mm.

20 *A* 13. Same die.

P 10. Same die as 16. **Pl. II.**

a. London, 49, grm. 8.26, 17x20 mm, B. M. Cat., pl. XXIX, 5.⁴⁴ E. Babelon Tr., t. IV, p. 142, 312.⁴⁵

b. G. Empedocles, grm. 8.48, 19 mm.

c. E. T. Newell, grm. 8.44, 20 mm.

d. Hirsch XXVI, 1910, 517, grm. 8.48, 22 mm.

Group B

21 *A 14.* Pegasos unbridled, with straight wing, flying r.; beneath, A.

P 4. Same die as 5. **Pl. II.**

a. E. T. Newell, grm. 8.29, 17x20 mm.

22 *A 14.* Same die.

P 12. Head of Athena r., wearing Corinthian helmet without neck-guard, hair in long wavy locks over neck, incuse square. **Pl. II.**

a. E. T. Newell, grm. 8.15, 20 mm.

23 *A 14.* Same die.

P 13. Similar head l., hair more curly; incuse square. **Pl. II.**

a. O. Ravel, grm. 8.35, 22 mm.

24 *A 14.* Same die. (Pegasos badly struck, looks larger.)

P 14. Similar head of Athena l., wearing Corinthian helmet over very small neck-guard, long locks coming down over neck, at r. a crab to l. **Pl. II.**

a. E. T. Newell, grm. 8.25, 17x20 mm.

25 *A 15.* Similar Pegasos to r., but larger.

P 14. Same die. **Pl. II.**

a. Gotha, grm. 8.43, 16x19 mm.

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26 *A 16.* Pegasos, unbridled, flying l., body fat, wing very large, edge beginning from near the head.

P 14. Same die. **Pl. III.**

a. Berlin, grm. 8.09, 17x19 mm.

27 *A 17.* Similar Pegasos with straight wing, flying l. Edge of wing ⁴⁶ parallel to the body; beneath, A.

P 15. Head of Athena l., wearing Corinthian helmet without neck-guard, hair in long locks falling down on neck and covering it completely; to r. behind the neck, kantharos; incuse square. **Pl. III.**

a. O. Ravel, grm. 7.87, 19 mm.

28 *A 17.* Same die.

P 16. Similar head, hair in short curly locks partially covering the neck, to r. in lower corner of incuse, kantharos. **Pl. III.**

a. London, grm. 8.38, 19 mm., B. M. Cat., 37, pl. XXVIII, 15. Babelon Tr., t. IV, 134, 289, pl. CCLXXXI, 11.

29 *A 17.* Same die.

P 17. Head of Athena to r. wearing neck-guard under helmet; to l. large club, all within incuse square. **Pl. III.**

a. London, grm. 8.40, 18 mm., B. M. Cat., Dyrrhachium, 1, pl. XXVI, 2. E. Babelon Tr., t. IV, p. 186, 386, pl. CCXXXV, 7.⁴⁷

30 *A 18.* Similar Pegasos flying l., body and legs longer; beneath, A.

P 18. Similar to *P 13*, only club thinner and differently placed. **Pl. III.**

a. O. Ravel, Marseilles, grm. 8.35, 20 mm. (ex Naville XII, 1926, 1303, Dyrhachium).⁴⁸

31 *A 19.* Similar Pegasos, body longer, edge of the wing not parallel to the body, but slanting upwards; beneath, archaic A.

P 19. Similar head of Athena l., no symbol visible. **Pl. III.**

a. Turin, 17x19 mm.

32 *A 20.* Pegasos flying l., body fat, wing very large, edge beginning from near the head, beneath fore-legs, A.

P 20. Athena's head as previously, only to r.; to r. laurel-leaf (or grain of barley); to l. small A; incuse square. **Pl. III.**

a. Cambridge, grm. 8.36, 19 mm., Cat. McClean, 5101, pl. 185, 6.

b. Berlin, grm. 8.29, 21 mm., Imhoof-Blumer.

c. Hirsch XXXI, 1911, 410, grm. 8.34, 20 mm. (Leucas).

d. Egger, 1912 (Coll. Prowe), 1067, grm. 8.09, 20 mm. (Leucas).

33 *A 21.* Same, but A differently placed.

P 21. Similar, head r., to l. ivy-leaf, incuse square. **Pl. III.**

a. Munich, grm. 8.23, 19 mm.

Group C

34 *A 22.* Pegasos unbridled with straight wing flying l., similar to A 19,* but body shorter and head raised; beneath, A.

P 22. Very similar to P 10 (pl. II); the nose of the goddess and her chin are more pointed and the neck-guard is larger; to l., A, to r., kerykeion. Traces of incuse square. **Pl. III.**

a. E. T. Newell, grm. 8.35, 17x19 mm.

35 *A 22.* Same die.

P 23. Similar head, but larger; to l., A, to r., kerykeion, traces of incuse square. **Pl. III.**

a. O. Ravel, grm. 8.12, 19x21 mm.

36 *A 22.* Same die.

P 24. Head of Athena r., wearing Corinthian helmet over neck-guard, to l., dagger in scabbard, incuse square. The eye of the goddess is almost facing. **Pl. III.**

a. London, B. M. Cat., Uncertain mints, 4, pl. XXIX, 3, grm. 8.32, 16x22 mm. Babelon Tr., t. IV, p. 125, 271, pl. CCLXXX, 10.

37 *A 22.* Same die.

P 25. Head of Athena r., wearing Corinthian helmet bound with olive-wreath, symbol to l. off-flan, in the r. corner of incuse square, A with its cross-piece parallel to outer line of the helmet. **Pl. III.**

a. London, grm. 8.37, 15x18 mm., B. M. Cat., 45.

38 *A 23.* Similar Pegasos; the only difference is that the first feather of the small ones is shorter and the third long feather is bent downwards.

P 26. Athena, head to l., with short locks and very small neck-guard. Eye almost facing; over the helmet to l., A. To r. a wreath encircling a kerykeion. This symbol, clearly visible in the reproduction, is formed by a circle with twelve pellets disposed in four groups of three round it. The kerykeion is superimposed; near its staff, inside the circle, there are two additional pellets on each side. **Pl. IV.**

a. Berlin, grm. 8.18, 18 mm., Löbbecke.

39 *A 23.* Same die.

P 27. Head of Athena similar to that of die P 10, but helmet bound with olive-wreath. To r., kerykeion placed vertically, all within incuse square. **Pl. IV.**

a. O. Ravel, grm. 8.36, 18 mm. (found in Pachino, Sicily).

b. Berlin, grm. 8.34, 18 mm. (Imhoof-Blumer).

40 *A 23.* Same die.

P 28. Head of Athena r., wearing helmet over small neck-guard and necklace of large beads; to l., large archaic A; to r., Nike flying to l., holding outstretched fillet over the goddess' helmet. The whole within incuse square. **Pl. IV.**

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- a.* Berlin, grm. 8.53, 18 mm. (Imhoof-Blumer).
- b.* Berlin, grm. 8.36, 18x23 mm. (Löbbecke).
- c.* Cambridge, grm. 8.50, 18x22 mm. (Cat. McClean, 5102, pl. 185, 7).⁴⁹
- d.* Egger, 1908, 491, grm. 8.25,⁵⁰ 23 mm.

41 *A 23.* Same die.

P 23. Same die as 35. **Pl. IV.**

- a.* E. T. Newell, grm. 8.20, 19 mm.
- b.* Naples hoard, 41, 18 mm.

42 *A 23.* Same die.

P 29. Head of Athena r., of very coarse style. Neck-guard very large, eye protruding, chin abnormally large; to l., kerykeion. **Pl. IV.**

- a.* O. Ravel, grm. 8.20, 17 mm.

43 *A 24.* Similar Pegasos. Legs and tail longer; beneath, A.

P 30. Similar head of Athena r. Style a little better, eye still protruding; to r. in the upper corner of incuse square, A; to l., obelisk of Ambracia on a large base. **Pl. IV.**

- a.* E. T. Newell, grm. 8.31, 19 mm.
- b.* E. T. Newell, grm. 8.49, 18x20 mm.
- c.* Athens, grm. 8.29,⁵¹ 17x22 mm.
- d.* Berlin, grm. 7.98, 17x23 mm. (Imhoof-Blumer).
- e.* O. Ravel, grm. 8.57, 18 mm., found near Catania.
- f.* Commerce (Paris), very poor, 18 mm.

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III. PERIOD FROM 426 TO 404 B.C.

Group A

44 A 25. Pegasos of high relief, with straight wing, flying r., mane long, head large, first feather of wing ⁵² the longest.

P 31. Athena's head r., wearing Corinthian helmet bound with olive, hair in spiral curls over cheek and neck; to l., kerykeion; A in the r. upper corner of incuse square. **Pl. IV.**

a. E. T. Newell, grm. 7.98, 19 mm.

45 A 26. Pegasos of very high relief, flying r., coarse style, body heavy and clumsy, legs very thick.

P 31. Same die. **Pl. IV.**

a. Berlin, grm. 8.12, 18 mm. (Prokesch-Osten).

b. Paris, grm. 8.43, 18x21 mm., Babelon Tr., t. IV, p. 141, 311, pl. CCLXXXII, 8.

c. London, grm. 7.90, 18x21 mm., B. M. Cat., 47.

46 A 27. Similar Pegasos but of better style, second feather the longest; outline of second wing visible, legs thinner.

P 32. Similar head but helmet plain; to l., kerykeion above a large archaic A. **Pl. IV.**

a. Berlin, grm. 8.66, 17x20 mm. (Fox).

b. E. T. Newell, grm. 8.10, 21 mm.

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47 *A 27*. Same die with diagonal fracture under Pegasos.

P 31. Same die as 44. **Pl. IV.**

a. Berlin, grm. 8.19, 17x20 mm. (Löbbecke).

b. London, grm. 8.35, 20 mm., B. M. Cat., 46, pl. XXIX, 4.

c. Naples hoard, 40, 20 mm.

48 *A 27*. Same die.

P 26. Same die as No. 38. **Pl. IV.**

a. London, 10a, grm. 8.29, 20 mm.

49 *A 27*. Same die with same fracture.

P 33. Similar head to *P 32*, face shorter; to l., kerykeion with short staff, to r. in the upper corner of incuse square A. **Pl. V.**

a. Berlin, grm. 8.36, 20 mm. (Löbbecke).

50 *A 28*. Similar Pegasos but second wing not visible, hind-legs nearer together.

P 32. Same die as 46, large flaw over helmet and under neck truncation. **Pl. V.**

a. London, grm. 8.45, B. M. Cat., 48, 18x23 mm.

51 *A 28*. Same die.

P 26. Same die as 38 (pl. IV). **Pl. V.**

a. Vienna, grm. 8.32, 18 mm.

b. The Hague, grm. 8.50, 20 mm. (Six).

52 *A 29.* Similar Pegasos flying r., hind-legs more apart and fore-legs less bent.

P 33. Same die as 49. **Pl. V.**

a. E. T. Newell, grm. 8.04, 17x20 mm.

53 *A 29.* Same die.

P 31. Same die as 44 (pl. IV). **Pl. V.**

a. Munich, grm. 7.89, 18 mm.

Group B

54 *A 30.* Pegasos unbridled flying r. Row of small feathers ⁵² in a straight line beginning from the edge of the wing to the r. shoulder.

P 34. Head of Athena r., wearing Corinthian helmet over neck-guard; to l., large archaic A, to r., in front of the helmet, strung bow. Traces of incuse square. **Pl. V.**

a. London, grm. 8.10, 15x18 mm., B. M. Cat., 41, Pl. XXIX, 2. Babelon Tr., t. IV, p. 137, 299.⁵³

55 *A 30.* Same die.

P 35. Similar head r., to l., large A, to r., ivy-leaf, incuse square. **Pl. V.**

a. Vienna, grm. 8.13, 17 mm.

b. Berlin, grm. 7.93, 18 mm. (Prokesch-Osten).

c. Paris, grm. 8.45, 18 mm., Babelon Tr., IV, p. 126, 269, pl. CCLXXX, 8.

d. E. T. Newell, grm. 8.19, 18 mm.

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56 *A 31.* Similar Pegasos, slightly larger and of higher relief. The edge of the wing is not straight but a wavy line; the outer feathers just above the body point downward.

P 34. Same die as 54. **Pl. V.**

- a.* Berlin, grm. 8.55, 15x17 mm. (Prokesch-Osten).
- b.* Berlin, grm. 8.57, 18 mm. (Prokesch-Osten).
- c.* O. Ravel, grm. 8.55, 17 mm.
- d.* The Hague, grm. 8.52, 18 mm. (Six), Babelon Tr., t. IV, p. 45, Alyzia, 45, pl. CCLXXII, 17. Imhoof-Blumer M.A., p. 47, 1.⁵⁴

57 *A 31.* Same die.

P 36. Similar head r.; to r., hound running to l.; to l., large A; incuse square. **Pl. V.**

- a.* Berlin, grm. 8.19, 18 mm. (Löbbecke). Babelon, l.c., p. 111, 247, Argos.
- b.* Berlin, grm. 8.26, 18 mm. (Prokesch-Osten).
- c.* Paris, uncertain mints, 1106, 18 mm.
- d.* G. Empedocles, grm. 8.89, 18 mm.
- e.* London, grm. 8.60, 18x22 mm., B. M. Cat., 21, pl. XXVIII, 3. Babelon Tr., t. IV, p. 125, 272, pl. CCLXXX, 11. Imhoof-Blumer M. A., p. 83, Argos,⁵⁴ 2.
- f.* Comte Chaudon de Briailles, grm. 8.36, 20 mm.

58 *A 31.* Same die.

P 37. Similar head r.; to l., A, to r., crane with one leg raised. **Pl. V.**

- a.* E. T. Newell, grm. 8.30, 17 mm.
- b.* O. Ravel, grm. 8.17, 18 mm. (found in Trapani), Num. Chr., 5th Ser., p. 4, 1926, pl. XX, 14.
- c.* Berlin, grm. 8.20, 18 mm. (Prokesch-Osten).

- d.* Glasgow, grm. 8.40, 19 mm. (Hunterian coll.).
- e.* London, grm. 8.20, 16x20 mm., B. M. Cat., 5, uncertain mints, pl. XXXIX, 4.
- f.* O Ravel, grm. 8.35, mm.

Group C

59 *A 32.* Pegasos unbridled with straight wing flying l. Upper part of wing composed of four feathers, badly struck, only partly visible.

P 38. Head of Athena l., wearing Corinthian helmet over neck-guard, to r., strigil; under chin, A, all within deep incuse square, in which head is placed diagonally. **Pl. V.**

- a.* E. T. Newell, grm. 8.34, 16x18 mm.
- b.* Berlin, grm. 8.41, 20 mm.
- c.* London, grm. 8.36, 20 mm., B. M. Cat., 52, pl. XXIX, 8.
- d.* E. T. Newell, grm. 8.38, 18 mm.

60 *A 32.* Same die.

P 39. Similar to P 38 save that strigil is thinner. **Pl. VI.**

- a.* E. T. Newell, grm. 8.28, 18x19 mm.

61 *A 33.* Similar Pegasos flying l. Upper part of wing composed of three feathers. Coarse style.

P 40. Similar to P 39, but A to l. over helmet; traces of incuse square. **Pl. VI.**

- a.* London, grm. 8.36, B. M. Cat., 53, 15x18 mm.

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62 *A 33*. Same die.

P 41. Similar head r., to l. *A*; to r. of helmet, dancing satyr to l., traces of incuse square. **Pl. VI.**

- a.* E. T. Newell, grm. 8.19, 17x19 mm.
- b.* E. T. Newell, grm. 8.52, 18x22 mm.
- c.* Berlin, grm. 8.20, 18 mm. (Prokesch-Osten).
- d.* Palermo, grm. 8.12, 18x22 mm.
- e.* Paris, uncertain mints, 1108, 19 mm.
- f.* O. Ravel, grm. 8.24, 18x21 mm., ex Naville XII, 1926, 1315.
- g.* Commerce, Marseilles, grm. 8.25, 21 mm.

63 *A 33*. Same die.

P 42. Similar head r., dancing satyr to l. much larger and less sketchy. **Pl. VI.**

- a.* Berlin, grm. 8.11, 18x23 mm. (Prokesch-Osten).
- b.* London, grm. 8.42, 20 mm., B. M. Cat., 27, pl. XXVIII, 8. Babelon Tr., IV, p. 135, 292, pl. CCLXXXI, 14.⁵⁵
- c.* Munich, grm. 8.44, 20 mm.
- d.* E. T. Newell, grm. 8.25, 18x21 mm.
- e.* G. Empedocles, grm. 8.32, 20 mm.
- f.* Hoyt Miller, grm. 8.57, 18x20 mm.

Group D

64 *A 34*. Pegasos flying l.; body and especially hind-quarters very large. Head and wing small; beneath, *A*.

P 43. Head of Athena r. as on die *P 42*. To l., naked winged male figure, standing facing, head to r., holding taenia in both hands (*Eros?*).⁵⁶

Pl. VI.

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- a.* London, grm. 8.55, 18x22 mm., B. M. Cat., 31, pl. XXVIII, 11.
- b.* G. Empedocles, grm. 8.35, 20 mm., Cat. Sotheby, 1920, 57.
- c.* London, grm. 8.36, 20 mm., B. M. Cat., 32.
- d.* Paris, grm. 8.55, 18x21 mm., Babelon Tr., t. IV, p. 137, 296, pl. CCLXXXI, 18.

65 *A 35.* Similar Pegasos to l. better proportioned, head and neck larger; beneath, A.

P 44. Head of Athena l., to r., small plump owl facing. **Pl. VI.**

- a.* Cambridge, grm. 8.28, 20 mm., Cat. McClean, 5118, pl. 186, 3.⁵⁷
- b.* Berlin, grm. 8.22, 22 mm. (Prokesch-Osten).
- c.* The Hague, grm. 8.45, 22 mm. (Six).
- d.* E. T. Newell, grm. 8.52, 18x22 mm.
- e.* O. Ravel, grm. 8.35, 19x22 mm., ex Naville XII, 1926, 1315.
- f.* Cat. de Sartiges, 296, 20 mm.

66 *A 35.* Same die.

P 43. Same die as 64. **Pl. VI.**

- a.* E. T. Newell, grm. 8.21, 15x21 mm.

67 *A 36.* Pegasos flying r., edge of the wing parallel to the body; beneath, A.

P 45. Same head as on die P 43, to l. large fly. **Pl. VI.**

- a.* Cambridge, grm. 8.70, 19 mm., Cat. McClean coll., 5106, pl. 185, 11.⁵⁹

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68 *A 36.* Same die.

P 46. Same head r., to l. crab; flaw in the upper corner of incuse square. **Pl. VI.**

a. London, grm. 8.56, 15x18 mm., B. M. Cat., 22, pl. XXVIII, 4.

b. Paris, grm. 8.57, 20 mm., Babelon Tr., t. IV, p. 182, 287, pl. CCLXXXI, 9.

c. Naples hoard, 36, 21 mm.

d. Cat. de Sartiges, 297, 21 mm.

69 *A 36.* Same die.

P 47. Same head r., to l., large owl almost facing. Linear fracture over Athena's neck and chin. **Pl. VI.**

a. Glasgow, grm. 8.45, 18x21 mm. (Hunterian coll.).

b. E. T. Newell, grm. 8.42, 18x22 mm.

c. Dr. E. P. Robinson, Newport.

d. Hirsch 1909, XXV, 1148 (Philipsen), grm. 8.40, 22 mm.

70 *A 36.* Same die.

P 48. Similar head of Athena l., to r., owl to l. **Pl. VI.**

a. Vienna, grm. 8.50, 19 mm.

b. Munich, grm. 8.78, 21 mm.

c. E. T. Newell, grm. 8.28, 19 mm.

d. O. Ravel, grm. 8.56, 21 mm.

e. Egger, 1908, 497, grm. 8.45, 18x22 mm.

f. Naville VI, 1924 (Bement coll.), 964, grm. 8.45, 9 mm.

g. Naville XII, 1926, 1314, grm. 8.48, 21 mm.

h. G. Empedocles, grm. 8.45, 18x24 mm.

i. G. Empedocles, grm. 8.30, 17x21 mm.

j. Commerce, Marseilles, grm. 8.40, 20 mm.

71 *A 36.* Same die.

P 49. Same head l., to r. small owl to l.

Pl. VII.

a. Brussels, grm. 8.05, 18x20 mm.

b. London, grm. 8.50, 20 mm., B. M. Cat., 14, pl. XXVII, 11.

c. Berlin, grm. 8.29, 20 mm. (Prokesch-Osten).

d. Berlin, grm. 8.30, 22 mm. (Imhoof-Blumer).

e. Naples hoard, 34, 22 mm.

f. G. Empedocles, grm. 8.45, 18x22 mm.

g. Hoyt Miller, grm. 8.35, 23x19 mm.

h. Naville V, 1923, grm. 8.45, 18x20 mm.

i. Commerce, Paris, grm. 8.05, 20 mm.

72 *A 37.* Similar Pegasos, but smaller; beneath, A.

P 45. Same die as 67.

Pl. VII.

a. London, grm. 8.60, 18 mm., B. M. Cat., 53a. Babelon Tr., t. IV, p. 134, 288, pl. CCLXXXI, 10.⁵⁸

b. The Hague, grm. 8.50, 23 mm. (Six).

c. E. T. Newell, grm. 8.41, 20 mm.

73 *A 37.* Same die.

P 46. Same die as 68. Flaw larger.

Pl. VII.

a. Copenhagen, grm. 8.63, 17x20 mm.

b. Munich, grm. 8.04, 22 mm.

c. Paris, uncertain mints, 1104, 21 mm.

d. Naville, 1920 (Pozzi), 1748, ex Egger, 1908, 498, grm. 8.60, 19 mm.

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74 *A 37.* Same die.

P 47. Same die as 69.

Pl. VII.

a. E. T. Newell, grm. 8.44, 16x20 mm.

b. London, grm. 8.43, 21 mm., B. M. Cat., 15, pl. XXVII, 12.

c. Berlin, grm. 8.50, 22 mm. (Löbbecke).

d. Berlin, 255, grm. 8.40, 18x21 mm.

e. O. Ravel, grm. 8.39, 20x23 mm., ex Naville VI, 1924 (Bement), 965.

f. Egger, 1906, 348, grm. 8.58, 19 mm.

g. Egger, 1908, 496, grm. 8.40, 20 mm.

h. Cat. de Sartiges, 295, 20 mm.

i. Hirsch 1914, XXXIV, 407, grm. 8.45, 20 mm.

Group E

75 *A 38.* Pegasos unbridled flying r.; beneath, A. Upper part of the wing composed of five feathers, the first pointed, the others rounded.

P 50. Small head of Athena r., wearing Corinthian helmet over neck-guard, to l., \triangleright , all within wreath of ivy-leaves with berries.

Pl. VII.

a. E. T. Newell, grm. 7.45, 22 mm.

b. Sir C. W. C. Oman, 22 mm.

c. Dr. Petzalis, 20 mm.

d. Dr. Bernhard, grm. 8.20, 22 mm.

76 *A 39.* Similar Pegasos r. Same wing, body larger; beneath, AM.

P 51. Similar head r.; to l., cock; to r. AMΠPAKIΩTAN (retrograde). **Pl. VII.**

a. London, grm. 8.31, 18x25 mm., B. M. Cat., 3, pl. XXVII, 2. Babelon Tr., t. IV, p. 127, 275, pl. CCLXXX, 13.

- b.* Paris, grm. 7.96, 19 mm.
- c.* Berlin, grm. 8.35, 21 mm. (Imhoof-Blumer).
- d.* G. Empedocles, Athens, grm. 8.02, 18x21 mm.,
Cat. Naville XII, 1926, 1311.
- e.* Hirsch XXXI, 1912, 379, grm. 8.46, 21 mm.
- f.* E. T. Newell, ex Naville, V, 1923, 2128, grm. 8.34,
20 mm.
- g.* Naville V, 1923, 2129, grm. 8.61, 18x21 mm.
- h.* O. Ravel, grm. 8.15, 17x25 mm.

77 *A 39.* Same die.

P 52. Similar head r., but larger; to l.
spike-fish (Scorpena), to r. in front of the helmet
AM. **Pl. VII.**

- a.* Berlin, grm. 8.20, 20 mm. (Prokesch-Osten).

78 *A 40.* Similar Pegasos but flying l.; be-
neath, AM.

P 53. Larger head of Athena r., to l.
lion's head in profile to r., its tongue out; to r.
A M II. **Pl. VII.**

- a.* Paris, grm. 8.45, 23 mm., Babelon Tr., t. IV, p. 131,
282, pl. CCLXXXI, 4.
- b.* Munich, grm. 8.54, 22 mm.
- c.* Berlin, grm. 8.36, 20 mm., 28638.

79 *A 40.* Same die.

P 54. Probably same die as previous, to
r., in the place of the II, a locust facing l.

- a.* Cat. de Sartiges, 298, pl. XVII, 20 mm.

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80 *A 39.* Same die as 76.

P 54. Same die.

Pl. VII.

a. Paris, grm. 8.45, 19 mm.

Group F

81 *A 41.* Pegasos unbridled flying l. Head large, slightly bent, and almost facing; upper part of the wing composed of six feathers; beneath, A.

P 55. Small head of Athena r., wearing Corinthian helmet over neck-guard; to l. thunderbolt. Linear frame (?) within deep incuse square.

Pl. VII.

a. Copenhagen, grm. 8.19, 20 mm.

b. Hoyt Miller, grm. 7.52, 18x23 mm.

c. Paris, uncertain mints, 1124, 20 mm.

82 *A 41.* Same die.

P 56. Similar head r., slightly larger; to l. thunderbolt, the upper part shaped like lily-bud, the lower part with two volutes curled outwards and three waved flame lines, as on certain coins of Olympia.⁶² All within incuse square, without linear frame.

Pl. VII.

a. Berlin, grm. 8.32, 21 mm. (Löbbecke).

b. Paris, grm. 8.35, 18x21 mm., Babelon Tr., t. IV, p. 126, 274, pl. CCLXXX, 12.

83 *A 41.* Same die.

P 57. Large head of Athena l.; to r. small K and vertical thunderbolt, the upper part with

two volutes, a central dart and two waved flame lines (cf. No. 87a). **Pl. VIII.**

a. Naples hoard, 42, 21 mm.

84 *A 41.* Same die.

P 58. Very small head of Athena l. within laurel-wreath. **Pl. VIII.**

a. Berlin, grm. 8.52, 22 mm. (Prokesch-Osten).

85 *A 41.* Same die.

P 59. Same but on helmet A. Probably from the same die as previous, the civic initial having been cut afterwards. **Pl. VIII.**

a. E. T. Newell, grm. 8.16, 21 mm.

b. Egger, 1912, Prowe, 1059, grm. 8.56, 21 mm.

86 *A 41.* Same die.

P 60. Similar to P 58, to r. small vertical thunderbolt. **Pl. VIII.**

a. Berlin, grm. 8.25, 21 mm. (Prokesch-Osten).

b. G. Empedocles, grm. 7.65, 18x20 mm.

c. Naville I, 1920 (Pozzi), 1733, grm. 8.26, 18x20 mm., ex Egger, 1908, 502.

87 *A 42.* Similar Pegasos flying l. The upper part of the wing is composed of seven feathers; beneath, A.

P 57. Same die as 83. **Pl. VIII.**

a. E. T. Newell, grm. 8.37, 21 mm.

b. Athens, grm. 8.11, 20 mm.

c. Paris, grm. 8.25, 20 mm.

d. G. Empedocles, grm. 8.43, 21 mm.

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88 *A 42.* Same die.

P 60. Same die as 86. **Pl. VIII.**

a. London, grm. 8.40, 20 mm., B. M. Cat., 51, pl. XXIX, 7. Babelon Tr., t. IV, p. 139, 303, pl. CCLXXXI, 3.

b. Berlin, grm. 8.31, 21 mm. (Imhoof-Blumer).

c. Copenhagen, grm. 8.28, 20 mm.

d. Dr. Bernhard, grm. 8.28, 21 mm.

e. Coll. Godefroy, Paris, grm. 8.12, 20 mm.

f. O. Ravel, grm. 8.15, 18x21 mm., from Ratto, 1923, III, 640, pl. VII, 9.

89 *A 43.* Similar Pegasos, upper part of the wing composed of only six feathers, the third the longest; beneath, A.

P 60. Same die. **Pl. VIII.**

a. S. P. Noe, grm. 8.05, 18 mm.

IV PERIOD, FROM 404 TO 360 B.C.

Group A

90 *A 44.* Pegasos unbridled, with straight wing, flying l. Head in profile, raised, with both ears visible; beneath, A.

P 61. Head of Athena l. wearing Corinthian helmet over neck-guard on which small A: under chin, Δ; to upper left, A, to r., ⌘ and spear-head. **Pl. VIII.**

a. O. Ravel, grm. 8.47, 20x23 mm., ex Naville, XII, 1926, 1318.

b. Berlin, grm. 8.10, 19 mm. (Imhoof-Blumer).

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- c.* London, grm. 8.29, 18 mm., B. M. Cat., 44. Babelon Tr., t. IV, p. 139, 308.⁶³
- d.* Vienna, grm. 8.47, 17 mm.
- e.* E. T. Newell, grm. 8.66, 18x23 mm.
- f.* Sir C. W. C. Oman, Oxford.
- g.* Coll. Godefroy, Paris, grm. 8.70, 17 mm., Num. Chr., 5th Series, 1926, p. 4, pl. XX, n. 13.
- h.* Mrs. E. T. Newell, grm. 8.22, 19 mm.

91 *A 44.* Same die.

P 62. Similar, but spear-head is larger.

Pl. VIII.

- a.* Munich, grm. 8.43, 18x22 mm., ex Egger, 1908, 501

92 *A 44.* Same die. Some specimens show several flaws under the Pegasos, two linear ones near the A. The civic letter looks therefore like the monogram of Anactorium.^{63a}

P 63. Head of Athena r. wearing over neck-guard Corinthian helmet on which A. To l. grasshopper (*Grillus campestris*). Pl. VIII.

- a.* G. Empedocles, grm. 8.45, 19 mm.
- b.* Athens, grm. 8.20, 20x22 mm.
- c.* Copenhagen, grm. 8.10, 21 mm., from the Cat. Hirsch, XXXIV, 1914, 409.
- d.* Paris, "Uncertain Mints," n. 1113, 21 mm.
- e.* Hoyt Miller, grm. 8.11, 21 mm.
- f.* O. Ravel, grm. 8.25, 19 mm., found near Catania, Num. Chr., 5th Ser., 1926, p. 4, pl. XXI, 1.
- g.* Hirsch XXX, 1911 (Barron coll.), 536, grm. 8.29, 20 mm. Anactorium.
- h.* Hoyt Miller, 20x23 mm.

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93 *A 44.* Same die, same flaws.

P 64. Similar head r. in higher relief, neck-guard larger, under truncation of neck AH, to r. large \triangleleft , to l., Ξ and branch of thistle.⁶⁴

Pl. VIII.

a. London, grm. 8.37, 18 mm., B. M. Cat., 3, Anactorium, pl. XXXI, 3. Babelon Tr., t. IV, p. 91, 194, pl. CCLXXVIII, 1.⁶⁵

b. E. T. Newell, grm. 8.57, 19 mm.

c. O. Ravel, grm. 8.20, 21 mm., pl. VIII. Num. Chr., 5th Ser., 1926, p. 4, pl. XXI, 2.

d. Egger, 1908, 508, grm. 8.60, 17 mm. (Anactorium).

e. W. Gedney Beatty, New York, grm. 8.35.

94 *A 44.* Same die, same flaws.

P 65. Similar head of Athena r.; beneath truncation of neck HA, to l. Ξ , below which Pan with goat's head and legs r. carrying a branch over his shoulder, before him, under his left elbow a very small A, to r. \triangleleft .

Pl. IX.

a. London, grm. 8.48, 19 mm., B. M. Cat., 1, Anactorium, pl. XXXI, 1. Babelon Tr., t. IV, p. 91, 193, pl. CCLXXVII, 20.⁶⁶

b. London, grm. 8.42, 18 mm, op. c., 2, pl. XXXI, 2. Babelon, same plate, 21.

c. Berlin, grm. 8.35, 18 mm. (Imhoof-Blumer).

d. Berlin, grm. 8.43, 19 mm. (Prokesch-Osten).

e. O. Ravel, Marseilles, grm. 8.45, 19 mm., f. the Canessa sale, 1922, 438, pl. XX; Num. Chr., 5th Ser., 1926, p. 4, pl. XXI, 3.

95 *A 44.* Same die, same flaws.

P 66. Similar head of Athena r., but larger; to l. NA, to r., Pan's head in profile to l.
Pl. IX.

- a.* Berlin, grm. 8.34, 20x22 mm. (Prokesch-Osten).
- b.* Berlin, grm. 8.21, 20 mm.
- c.* E. T. Newell, grm. 8.38, 20 mm.
- d.* O. Ravel, grm. 8.78, 21 mm.
- e.* Commerce, Paris (very poor), 20 mm.

96 *A 44.* Same die.

P 67. Similar head; the symbol is nearer the helmet.
Pl. IX.

- a.* Berlin, grm. 8.47, 19x21 mm. (Imhoof-Blumer).

97 *A 45.* Similar Pegasos slightly smaller, and small feathers shorter.

P 63. Same die as 92. **Pl. IX.**

- a.* London, grm. 8.42, 19 mm., Cat. Weber Coll., 3830.

Group B

98 *A 46.* Pegasos, unbridled, flying r.; beneath, A. Head small, slightly bent and almost facing, body long and thin, tail exceptionally long and wavy; the top of the curve is even with the fourth feather of the wing. The A, visible on some specimens, is gradually obliterated.

P 64. Same die as 93. **Pl. IX.**

- a.* O. Ravel, grm. 7.15, 20 mm. (overcleaned specimen).

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99 *A 46.* Same die.

P 65. Same die as 94.

Pl. IX.

- a.* Berlin, grm. 8.40, 21 mm. (Prokesch-Osten).
- b.* Berlin, grm. 8.27, 22 mm. (Imhoof-Blumer).
- c.* Athens, grm. 8.40, 23 mm.
- d.* E. T. Newell, grm. 8.04, 21 mm.
- e.* O. Ravel, grm. 7.95, 19x24 mm.

100 *A 46.* Same die.

P 68. AMΠPAKIOTAN around to l.; head of Athena l., the eye of the goddess almost full-face; to r., tripod.

Pl. IX.

- a.* O. Ravel, grm. 8.35, 21 mm.
- b.* Berlin, grm. 8.41, 21 mm. (Löbbecke).
- c.* Berlin, grm. 8.36, 22 mm. (Imhoof-Blumer).
- d.* Berlin, grm. 8.27, 20 mm., 28633.
- e.* Cambridge, grm. 8.23, 21 mm., Cat. McClean coll., 5113, pl. 185, 18.
- f.* Milan, Castello Sforzesco, 21 mm.
- g.* The Hague, grm. 8.25, 22 mm.
- h.* Hoyt Miller, grm. 8.42, 24 mm.
- i.* Hirsch XXXIV, 405, grm. 8.35, 20 mm.
- j.* Naville V, 1923, 2130, grm. 8.23, 20 mm.

101 *A 46.* Same die.

P 69. AMΠPAKIOTAN around to l.; head similar to 100; to r., flaming torch.

Pl. IX.

- a.* O. Ravel, grm. 8.44, 21 mm., ex Hirsch XXV, 1909, 1147 (Philipsen).
- b.* Dr. Petzalis, Athens, 20x22 mm.
- c.* Egger, 1908, 505, grm. 8.15, 21 mm.

102 *A 47.* Similar Pegasos r. Head in profile, tail shorter—does not pass the level of the hind-quarters; beneath, A.

P 70. AMΠΡΑΚΙΩΤΑΝ around to l.; same head, to r., lyre (chelys). **Pl. IX.**

- a.* Vienna, grm. 8.30, 19 mm.
- b.* Athens, grm. 8.31, 21 mm.
- c.* Paris, grm. 8.40, 20 mm., Babelon Tr., t. IV, p. 129, pl. CCLXXX, 18.

103 *A 47.* Same die.

P 69. Same die as 101. **Pl. IX.**

- a.* Berlin, grm. 8.55, 24x30 mm. (Imhoof-Blumer).
- b.* Berlin, grm. 8.46, 22 mm. (Löbbecke).
- c.* Brussels, grm. 8.50, 21 mm.
- d.* Naples, Santangelo, 10317, 21 mm.
- e.* The Hague, grm. 8.20, 21 mm. (Six).
- f.* Hoyt Miller, grm. 8.16, 20x25 mm.
- g.* Ratto, III, 1923, 639, pl. VII, grm. 8.50, 20x24 mm. (coin pierced).

104 *A 47.* Same die.

P 68. Same die as 100. **Pl. IX.**

- a.* Brussels, grm. 8.25, 23 mm.
- b.* London, grm. 8.37, 19 mm., B. M. Cat., 7, pl. XXVII, 6.

105 *A 48.* Pegasos, unbridled, flying r. Body short and plump, edge of the wing curved, long feathers slightly bent towards the tail, A beneath.

P 70. Same die as 102. **Pl. IX.**

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- a.* E. T. Newell, grm. 8.13, 21 mm.
- b.* Berlin, grm. 8.51, 19 mm., 28784.
- c.* Berlin, grm. 8.47, 18x21 mm. (Fox).
- d.* Copenhagen, grm. 7.89, 20 mm.
- e.* Cambridge, grm. 8.31, 18x22 mm., Cat. McClean coll., 5111, pl. 185, 16.
- f.* Munich, grm. 8.53, 18x22 mm.
- g.* E. T. Newell, grm. 8.45, 19 mm.
- h.* London, grm. 8.40, 23 mm., B. M. Cat., 8, pl. XXVII, 7.
- i.* Hoyt Miller, grm. 7.76, 22 mm.
- j.* Sotheby, 1921, 244, 20 mm.
- h.* Naville XII, 1926, 1312, grm. 7.00, 19 mm. (over-cleaned).

106 *A* 48. Same die.

P 71. AMBPAKIΩTAN around to l. Same head l., but smaller, eye almost full-face. Behind, to r., girl clad in long chiton, standing l. near a kottabos pole which she holds with her l. hand. With her r. hand she is about to seize the *πλάστιγξ* at the end of the pole (*ῥάβδος κοτταβική*). The pole has at the lower end a stand formed of three legs and at about half-way up between the foot and the top there is a *κοττάβειον*. **Pl. X.**

- a.* Berlin, grm. 8.49, 21 mm., 7175.
- b.* Berlin, grm. 8.17, 18x22 mm. (Prokesch-Osten).
- c.* Cambridge, grm. 8.40, 19x22 mm., ex Hirsch XVIII, 1907, 2397, Cat. McClean coll., 5115, pl. 185, 20 (coin pierced).
- d.* London, grm. 8.45, 20 mm., B. M. Cat., 5, pl. XXVII, 4.
- e.* Munich, grm. 8.44, 20 mm.
- f.* Vienna, grm. 8.48, 19 mm.

- g.* Paris, grm. 8.46, 20 mm., Babelon Tr., t. IV, p. 130, 276, pl. CCLXXX, 14.
- h.* Paris, grm. 8.50, 21x23 mm., J. Babelon Cat. Coll. de Luynes, 1887, pl. LXXI.⁶⁷
- i.* Naples, Fiorelli, 6801, 20x22 mm.
- j.* The Hague, grm. 7.90, 20x22 mm.
- k.* Hoyt Miller, grm. 8.29, 21 mm.
- l.* Cat. de Sartiges, pl. XVI, 294, 20 mm.
- m.* Hirsch XXI, 1908 (Consul Weber), 1830, grm. 8.42, 20 mm.
- n.* Ratto, 1909, 2194, grm. 8.44, 20 mm.

107 *A* 48. Same die.
P 72. AMΠPAKIΩTAN around to l.
 Similar head l.; to r. uncertain symbol.

a. Ratto, 1927, 1096, grm. 8.27, 22 mm., ex Navilie V, 1923, 2127.

108 *A* 49. Similar Pegasos r. Edge of the wing less rounded, on hind-quarters archaic A; beneath, A.

P 71. Same die as 106. **Pl. X.**

a. O. Ravel, grm. 8.30, 20 mm., ex Bement Coll., Nashville, VI, 1924, 963, and Hirsch, XXXI, 1912, 380. Num. Chr., 1926, p. 4, pl. XX, 9.

109 *A* 50. Pegasos as on A 43, flying l., wing larger, feathers wider; beneath, A.

P 73. Similar to P 72; letters differently placed. **Pl. X.**

a. Commerce Naples, grm. 7.95, 20 mm.

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110 *A 51.* Pegasos flying r., similar to 103, upper edge of the wing parallel to the body, small feathers slanting downwards; beneath, A.

P 73. Same die. **Pl. X.**

- a.* O. Ravel, grm. 8.43, 18x22 mm.
- b.* Berlin, grm. 8.26, 19 mm. (Dänneberg).
- c.* Berlin, grm. 8.45, 17x20 mm. (Löbbecke).
- d.* Brussels, grm. 8.10, 20 mm.
- e.* Cambridge, grm. 8.05, 21 mm., McClean coll., 5112, pl. 185, 17.⁶⁸
- f.* Copenhagen, grm. 8.33, 17x21 mm.
- g.* London, grm. 7.78, 18x23 mm., B. M. Cat., 10.
- h.* London, grm. 8.29, 20 mm., B. M. Cat., 12, pl. XXVII, 9.
- i.* Naples, 19 mm., Fiorelli, 6803.
- j.* Paris, grm. 8.15, 19 mm., Babelon Tr., t. IV, p. 130, 279, pl. CCLXXX, 19.
- k.* Paris, grm. 8.27, 20x25 mm.
- l.* The Hague, grm. 7.70, 20 mm. (Six).
- m.* Vienna, grm. 8.79, 18x21 mm.
- n.* G. Empedocles, grm. 8.44, 22 mm.
- o.* Hoyt Miller, grm. 7.57, 18x22 mm.
- p.* E. T. Newell, grm. 8.49, 18x21 mm.
- q.* E. T. Newell, grm. 8.35, 16x22 mm.
- r.* Cat. W. de Moltheim, 1293, grm. 8.30,⁶⁹ 20 mm.
- s.* Hirsch XIII, 1905 (Rhousopoulos), 2348, grm. 8.12, 20 mm.
- t.* Hirsch XXVI, 1910, 516, grm. 8.45, 20 mm.
- u.* Hirsch XXXIV, 1914, 406, grm. 8.46, 20x22 mm.

111 *A 52.* Similar Pegasos r. but smaller; beneath, large A.

P 74. Similar head l., eye of the goddess still full-face; to r. fore-part of a butting bull to l. **Pl. X.**

- a. Vienna, grm. 8.48, 17 mm.
- b. Berlin, grm. 8.24, 18 mm. (Löbbecke).
- c. London, grm. 8.48, 21 mm., B. M. Cat., 18, pl. XXVII, 15. Babelon Tr., t. IV, p. 131, 280, pl. CCLXXXI, 2.
- d. The Hague, grm. 8.50, 16x20 mm. (Six).

112 A 52. Same die.
P 75. Similar head l., no symbol visible.
Pl. X.

- a. Vienna, grm. 8.31, 18x22 mm.

113 A 52. Same die.
P 76. Large head of Athena r. of quite different style; to r., A, to l., prow. Traces of incuse square.
Pl. X.

- a. Berlin, grm. 8.52, 20 mm. (Prokesch-Osten).
- b. London, grm. 8.49, 21 mm., B. M. Cat., 39, pl. XXIX, 1.
- c. London, grm. 8.18, 20 mm., B. M. Cat., 40.
- d. Berlin, grm. 8.19, 19 mm. (Imhoof-Blumer).
- e. Cambridge, grm. 8.44, 18 mm., Cat. McClean, 5109, pl. 185, 14.
- f. Copenhagen, grm. 8.62, 19 mm.
- g. Glasgow, Hunterian coll., 19 mm.
- h. Munich, grm. 8.40, 18x22 mm.
- i. Paris, grm. 8.52, 18 mm., Babelon Tr., t. IV, p. 138, 298, pl. CCLXXXI, 20.⁷⁰
- j. Vienna, grm. 8.43, 18 mm.
- k. E. T. Newell, grm. 8.16, 22 mm.
- l. O. Ravel, grm. 7.96, 21 mm.
- m. Hirsch XXX, 1911, 530, grm. 8.53, 19 mm.
- n. Naville V, 1923, 2134, grm. 8.20, 18 mm.
- o. Naville XII, 1926, 1316, grm. 8.51, 18 mm.

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114 *A 52.* Same die.

P 77. Head of Athena as on die *P 73*, but ethnic is omitted; symbol off-flan.

a. Naville I, 1920 (Pozzi), 1746, grm. 8.45, 19 mm.

Group C

115 *A 53.* Pegasos unbridled, flying l. First feather of the small feathers pointed and extending beyond the edge of the wing; upper part of the wing composed of seven feathers.

P 71. Same die as 106. **Pl. X.**

a. E. T. Newell, grm. 8.33, 16x18 mm.

116 *A 53.* Same die.

P 78. Head of Athena r. wearing neck-guard under Corinthian helmet, on which, A; to l. youthful river-god Arachthos, naked, horned, seated to r. on bull's head facing, clasping hands round l. knee; over the god's head APAT. . . .

Pl. X.

a. Berlin, grm. 8.34, 16 mm. (Löbbecke).

b. Cambridge, grm. 8.21, 17 mm., Cat. McClean, 5105, pl. 185, 10.⁷⁶

c. O. Ravel, grm. 8.40, 19 mm.

d. E. T. Newell, grm. 8.17.

117 *A 53.* Same die.

P 79. Head of Athena r., helmet very small; to l., A, to r. naked bearded hero, wearing conical pilos and armed with sword and oval shield.

Pl. X.

- a.* Berlin, grm. 8.33, 18 mm. (Fox).
- b.* Berlin, grm. 7.96, 19 mm. (Imhoof-Blumer).
- c.* Cambridge, grm. 8.28, 20 mm., Cat. McClean, 5104, pl. 185, 9.
- d.* Vienna, grm. 8.06, 17x23 mm.
- e.* Vienna, grm. 8.34, 18 mm.
- f.* de Loye, Nîmes, 18 mm.
- g.* Hoyt Miller, grm. 7.70, 17x21 mm. (coin pierced).

118 *A 53.* Same die.

P 80. Head of Athena r. wearing Corinthian helmet on which A, to r. a locust facing l. (πάρνοψ).⁷⁴ **Pl. XI.**

- a.* London, grm. 8.36, 21 mm., B. M. Cat., 25.
- b.* Munich, grm. 8.16, 17x20 mm.
- c.* Egger, 1908, 499, grm. 8.45, 15x20 mm.

119 *A 53.* Same die.

P 81. Head of Athena r. wearing Corinthian helmet over neck-guard on which A; to l. Gorgon's head facing with protruding tongue, disposed sideways, tongue towards the neck-guard (cf. pl. XII, 133). **Pl. XI.**

- a.* E. T. Newell, grm. 8.25, 18 mm.

120 *A 53.* Same die.

P 82. Head of Athena r.; in front a flying male figure (Eros?) is binding an olive-wreath round helmet, on which A (cf. pl. XII, 129). **Pl. XI.**

- a.* The Hague, grm. 7.05, 18x21 mm. (Six).
- b.* Naville V, 1923, 2133, grm. 8.21, 20 mm.

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- c.* W. Gedney Beatty Coll., ex Naville I, 1920 (Pozzi), 1750, and, Egger, 1908, 500, grm. 8.40, 16x21 mm.
- d.* J. Mavrogordato, grm. 8.09, 21 mm.

121 *A 54.* Similar Pegasos, but larger, flying l. Head slightly bent, almost facing; archaic A on hind-quarters.

P 71. Same die as 106. **Pl. XI.**

- a.* E. T. Newell, grm. 8.39, 20 mm.
- b.* Paris, grm. 8.40, 20 mm., Babelon Tr., t. IV, p. 130, 276,⁷¹ pl. CCLXXX, 16.

122 *A 54.* Same die.

P 83. Head of Athena r. wearing neck-guard under Corinthian helmet, on which A; to r. ΓΟΡΓΟΣ. To l. male, naked figure, wearing conical pilos and supporting himself on long staff in his l. hand. (Cf. pl. XI, 127.)

- a.* Hirsch XIII, 1905 (Rhousopoulos), 2356, grm. 8.31, 23 mm.

123 *A 54.* Same die.

P 78a. Same die as *P 78* (pl. X, 116). The inscription APAT... over the god's head has been erased and replaced by APAΘΘΟΣ in front of Athena's face. **Pl. XI.**

- a.* Berlin, grm. 8.35, 19 mm.
- b.* London, grm. 8.45, 20 mm., B. M. Cat., 28.
- c.* E. P. Robinson, Newport.
- d.* Hirsch, 1908, XXI (Consul Weber), 1832, grm. 8. 13, 21 mm.
- e.* Ratto, 1909, 2287, grm. 8.50, 18 mm.
- f.* Sotheby, 1920, 57, 20 mm.

124 *A 54.* Same die.

P 84. AMΠPAKIΩTAN around to l. Head of Athena l. as on die *P 71*, eye almost full-face. To r. youthful naked male figure, wearing Corinthian helmet, standing l. with his r. hand raised to his head, long curls falling over neck. (Cf. 125*f*, the only specimen with the complete figure.) ⁷² **Pl. XI.**

a. Berlin, grm. 7.53, 19 mm. (Imhoof-Blumer).

125 *A 55.* Similar Pegasos flying l., but smaller, head in profile and raised. Upper part of the wing composed of five large feathers; on hind-quarters, archaic A.

P 84. Same die. **Pl. XI.**

a. E. T. Newell, grm. 8.41, 20 mm., ex Egger, 1908, 495.

b. Berlin, grm. 8.34, 17x20 mm. (Löbbecke).

c. Copenhagen, grm. 8.16, 20 mm., Hirsch, 1909, XXV (Philipsen), 1146.

d. London, grm. 8.23, 21 mm., B. M. Cat., 6, pl. XXVII, 5. Babelon Tr., t. IV, p. 130, 227, pl. CCLXXX, 17.⁷³

e. O. Ravel, grm. 7.95, 20 mm.

f. Paris, 21x22 mm. (de Rothschild, 2686).

126 *A 55.* Same die.

P 78a. Same die as 123. **Pl. XI.**

a. O. Ravel, grm. 8.34, 20 mm. (found near Catania), Num. Chr., 1926, p. 4, pl. XX, 10.

b. Berlin, grm. 7.59 (worn), 20 mm. (Imhoof-Blumer).

c. Copenhagen, grm. 7.77 (worn), 18 mm.

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d. London, grm. 8.30, 20 mm., B. M. Cat., 28, pl. XXVIII, 9. Babelon Tr., t. IV, p. 135, 293, pl. CCLXXXI, 15.

e. E. T. Newell, grm. 8.34, 20 mm., ex Sotheby, 1920, 57.

f. Cat. de Sartiges, 299, 19x22 mm.

g. Naville VI, 966 (Bement), grm. 8.34, 20 mm.

127 *A 55.* Same die.

P 83. Same die as 122.

a. Paris, grm. 8.45, 16x20 mm., Babelon Tr., t. IV, p. 131, 281, pl. CCLXXXI, 3.⁹ **Pl. XI.**

128 *A 55.* Same die.

P 85. Head of Athena r. similar to *P 83* with *A* on the helmet, to l. youthful winged, naked, male figure riding dolphin to r. his hands clasped round left knee. **Pl. XI.**

a. E. T. Newell, grm. 8.43, 16x20 mm., ex Hirsch XXXI, 1912, 389.

129 *A 55.* Same die.

P 82. Same die as 120.

a. O. Ravel, grm. 8.48, 20x23 mm., ex Hirsch XXX, 1911, 527, and Ratto, 1912, 692. Num. Chr., 1926, p. 312, pl. XX, 11. **Pl. XI.**

b. Berlin, grm. 8.09, 18 mm. (Löbbecke).

c. Copenhagen, grm. 7.97 (Worn), 17 mm.

d. London, grm. 8.36, 18x21 mm., B. M. Cat., 26, pl. XXVIII, 7. Babelon Tr., t. IV, p. 135, 291, pl. CCLXXXI, 13. **Pl. XII.**

e. The Hague, grm. 7.05 (very worn), Six.

f. G. Empedocles, grm. 8.33, 20 mm.

130 *A 55.* Same die.

P 80. Same die as 118. **Pl. XII.**

a. London, grm. 8.45, 18x22 mm., B. M. Cat., 24, pl. XXVIII, 6. Babelon Tr., t. IV, p. 135, 290, pl. CCLXXXI, 12.⁷⁵

b. Munich, grm. 8.16, 21 mm.

c. Hirsch XXV, 1909 (Philipsen), 1150, grm. 8.07, 20 mm.

d. Sotheby, 1921, 20 mm.

131 *A 55.* Same die.

P 81. Same die as 119. **Pl. XII.**

a. Berlin, grm. 8.36, 20 mm. (Löbbecke).

132 *A 55.* Same die.

P 79. Same die as 117. **Pl. XII.** ^(75a)

a. O. Ravel, grm. 8.36, 18 mm., Num. Chr., 1926, p. 312, 12, pl. XX, 12.

b. Copenhagen, grm. 7.10 (very worn), 18 mm., ex Hirsch, XXXIV, 1914, 410.

133 *A 56.* Similar Pegasos, flying r., on hind-quarters A.

P 81. Same die as 119. **Pl. XII.**

a. E. T. Newell, grm. 8.41, 18 mm.

b. Naville, 1920 (Pozzi), 1783, ex Hirsch XXXI, 1912, 393, grm. 8.35, 19 mm.

134 *A 56.* Same die.

P 79. Same die as 117. **Pl. XII.**

a. Berlin, grm. 8.09, 17 mm. (Prokesch-Osten).

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V PERIOD, FROM 360 TO 338 B.C.

Group A

135 A 57. Pegasos with curled wing walking r. on exergual line. Above the line and beneath the body of Pegasos, A.

P 86. Head of Athena l. wearing neck-guard and Corinthian Helmet; above to l., archaic A. To r., naked male figure, wearing conical pilos, seated slightly towards l. on rocks, his r. hand raised, his l. resting on rocks and holding small staff.⁷⁸ To l. under the goddess' chin a serpent coiled round a land-tortoise (*Chelonia Græca*) and striking at it. **Pl. XII.**

- a.* Berlin, grm. 8.41, 18 mm. (Imhoof-Blumer).
- b.* Vienna, grm. 8.90, 17x20 mm.
- c.* London, grm. 8.16, 19 mm., B. M. Cat., 35, pl. XXVIII, 14. Babelon Tr., t. IV, p. 134, 284, pl. CCLXXXI, 6.
- d.* London, grm. 8.36, 18x22 mm., B. M. Cat., 36.
- e.* Paris, grm. 8.37,⁸⁰ 22 mm.
- f.* P. Mathey, Paris, grm. 8.77, 20 mm., ex Egger, 1906, 349.
- g.* Dr. Petzalis, Athens, 19x23 mm.
- h.* Hoyt Miller, grm., 18 mm.
- i.* O. Ravel, grm. 8.15, 21 mm.
- j.* Cat. de Sartiges, pl. XVII, 301, 20 mm.
- k.* Santamaria, 1910 (Hartwig), 785, 20 mm.
- l.* Sotheby, 1909 (Benson), 487, grm. 8.36,⁷⁹ 21 mm.
- m.* Dr. E. P. Robinson, Newport, ex Sotheby, 1920, 59, 19 mm.
- n.* Hirsch XXX, 1911 (Barron), 529, grm. 8.45, 21 mm.
- o.* Hess, 1926 (Löbbecke), 271, grm. 8.50, 21 mm.

136 *A 57.* Same die. Small flaw on exergual line.

P 87. Similar head l.; to l. under chin archaic A, to r., infant Iacchos, squatting, his r. hand raised. **Pl. XII.**

a. London, grm. 8.49, 19 mm., B. M. Cat., 34, pl. XXVIII, 13.

b. Berlin, grm. 8.49, 19 mm. (Imhoof-Blumer).

c. Berlin, grm. 8.35, 17x21 mm. (Löbbecke).

d. Cambridge, grm. 8.13, 18x21 mm., McClean, 5099, pl. 185, 4.

e. Cambridge, grm. 8.20, 17x20 mm., McClean, 5100 pl. 185, 5, from the Sotheby's sale, 1909 (Benson), 486.

f. Milan, 18x23 mm.

g. Paris, grm. 8.45, 19x22 mm., Babelon Tr., t. IV, p. 131, 283, pl. CCLXXXI, 5.

h. E. T. Newell, grm. 7.95, 17x22 mm.

i. O. Ravel, grm. 8.55, 18x22 mm.

j. Hess, 1926 (Löbbecke), 270, grm. 7.90, 21 mm.

k. Hoyt Miller.

l. S. P. Noe, grm. 8.24.

137 *A 57.* Same die, larger flaw.

P 88. Similar head l. but larger; to r. head of Achelous facing. **Pl. XII.**

a. E. T. Newell, grm. 8.30, 20x23 mm.

b. Berlin, grm. 8.38, 21 mm. (Imhoof-Blumer).

c. Berlin, grm. 8.51, 20 mm., from the Dodona find.

d. Cambridge, grm. 8.17, 18 mm. McClean, 5098, pl. 185, 4.

e. London, grm. 8.37, 21x23 mm., B. M. Cat., 19, pl. XXVIII, 1, pl. XII.

f. Paris, grm. 8.40, 20 mm., Babelon Tr., t. IV, p. 134, 286, pl. CCLXXXI, 8.

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- g.* Palermo, grm. 8.19, 20 mm.
- h.* Vienna, grm. 8.48, 20 mm.
- i.* G. Empedocles, grm. 8.46, 20 mm.
- j.* O. Ravel, grm. 8.00, 20 mm.
- k.* Hirsch XXXI, 1912, 385, grm. 8.35, 19 mm.
- l.* Comte Chandon de Briailles, grm. 8.36, 20 mm.

138 *A 57.* Same die, flaw larger.

P 89. Same head; to r. Head of Ache-
lous in profile to r. **Pl. XII.**

- a.* Athens, grm. 8.35, 20x24 mm.
- b.* Berlin, grm. 8.33, 18 mm. (Imhoof-Blumer).
- c.* Paris, grm. 8.45, 21 mm., Babelon Tr., t. IV, p. 134, 285, pl. CCLXXXI, 7.
- d.* Hoyt Miller, grm., 20 mm.
- e.* O. Ravel, grm. 8.30, 18 mm.
- f.* Hirsch XXV, 1909 (Philipsen), 1149, grm. 8.40, 21 mm.
- g.* Sotheby, 1921, 245, 19 mm.

139 *A 58.* Pegasos, with head slightly bent and straight wing, flying r.; beneath, A. Three rows of feathers, fourth feather half the length of the third.

P 90. Head of Athena r. similar to previous ones; to l. copy of a statue of Zeus striding r., hurling thunderbolt, left arm outstretched. **Pl. XIII.**

- a.* Berlin, grm. 8.37, 22 mm. (Löbbecke).
- b.* London, grm. 8.44, 20 mm., B. M. Cat., 33, pl. XXVIII, 12. Babelon Tr., t. IV, p. 136, 295, pl. CCLXXXI, 17.
- c.* Munich, grm. 7.45, 22 mm.
- d.* Vienna, grm. 8.44, 20 mm.

140 *A 58.* Same die.

P 91. Probably same die as previous. Over Zeus has been added A, and under neck truncation, a dolphin to l. **Pl. XIII.**

- a.* Berlin, grm. 8.55, 19x21 mm. (Imhoof-Blumer).
- b.* Berlin, grm. 8.37, 18x22 mm. (Löbbecke).
- c.* Vienna, grm. 8.45, 20 mm.
- d.* Count de Brandis, Venice, grm. 7.50 (worn), 18 mm.
- e.* Egger, 1906, 351, grm. 8.79, 19 mm.

141 *A 58.* Same die.

P 92. Similar head of Athena, but r.; to r. large cicada. **Pl. XIII.**

- a.* London, grm. 8.49, 20x23 mm., B. M. Cat., 23, pl. XXVIII, 5.
- b.* E. T. Newell, grm. 8.46, 20 mm.

142 *A 58.* Same die.

P 88. Same die as 137. **Pl. XIII.**

- a.* Vienna, grm. 8.13, 20 mm.
- b.* Berlin, grm. 8.33, 22 mm. (Imhoof-Blumer).
- c.* Berlin, grm. 8.35, 20 mm. (Imhoof-Blumer).
- d.* London, grm. 8.63, 20 mm., B. M. Cat., 20, pl. XXVIII, 2.
- e.* O. Ravel, grm. 8.40, 20 mm.
- f.* Hirsch XXXI, 1912, 286, grm. 8.75, 20 mm.

143 *A 58.* Same die.

P 89. Same die as 138. **Pl. XIII.**

- a.* Berlin, grm. 8.29, 18 × 21 mm. (Prokesch-Osten).
- b.* O. Ravel, grm. 8.15, 20 mm.

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144 A 59. Similar Pegasos, smaller, wing composed of only two rows of small feathers; beneath, A.

P 93. Head of Athena l.; to r. NI and dove flying to r. **Pl. XIII.**

a. Cambridge, grm. 8.28, 18 mm., McClean, 5114, pl. 185, 19.

Group B

145 A 60. Pegasos unbridled flying r. Head slightly bent, wing similar to A 58. Beneath, running chimaera, to r.

P 94. Head of Athena r. similar to P 90 only larger, to l. large A. **Pl. XIII.**

a. Sir C. W. C. Oman, Oxford, 19x21 mm.

146 A 61. Similar Pegasos, standing r. with l. fore-leg bent; beneath, a naked, male figure (Bellerophon) in squatting attitude sitting on his left heel and examining Pegasos l. hoof.

P 94. Same die. **Pl. XIII.**

a. Berlin, grm. 8.63, 21 mm. (Löbbecke).

b. Berlin, grm. 8.40, 18 mm. (Prokesch-Osten).

c. Cambridge, grm. 8.37, 21 mm., McClean, 5110, pl. 185, 15.

d. Naples hoard, 43, 21 mm.

e. Paris, grm. 8.50, Babelon, 20x25 mm., op. c., p. 139, 310, pl. CCXXXII, 7.⁸¹

f. Vienna, grm. 7.50, 21 mm.⁸²

g. Jameson, Paris., 1116, ex Egger, 1906, 350, grm. 8.54, 19 mm.

h. E. T. Newell, grm. 8.07, 20 mm., ex Hirsch XXXIV, 414.

147 *A 61.* Same die.

P 95. Similar head to that on die *P 94.* helmet larger but small for the head; curls round neck-guard larger. To l., A. **Pl. XIII.**

a. Paris, grm. 22 mm., J. Babelon, Coll. de Luynes, 1889, pl. LXXI.

b. London, grm. 8.50, 18 mm., B. M. Cat., 57, pl. XXIX, 11.

c. Munich, grm. 8.23, 21 mm., ex Hirsch XXV, 1909, 1154.

d. R. E. Hart, Blackburn, grm. 8.49, 20 mm. (Cat. Sotheby, 1920, 60).

e. E. T. Newell, grm. 8.53, 21 mm.

f. O. Ravel, grm. 8.52, 19x22 mm., ex Naville XII, 1926, 1319.

148 *A 62.* Pegasos flying r. similar to die *A 59.* Wing composed of two rows of feathers, the tips slightly bent upwards. Body longer; beneath A.

P 96. Head of Athena r. but smaller; over neck-guard to l., dove flying l. **Pl. XIII.**

a. London, grm. 8.58, 20x25 mm., B. M. Cat., 13, pl. XXVII, 10.

b. E. T. Newell, grm. 8.57, 17x24 mm.

149 *A 63.* Similar Pegasos, head less bent, one feather of second wing visible; first four feathers almost of the same length; beneath, A.

P 96. Same die. **Pl. XIV.**

a. O. Ravel, grm. 8.72, 19x21 mm., ex Ratto, 1927, 1097, pl. XXXI.

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- b.* Copenhagen, grm. 8.42, 17x25 mm.
- c.* Hoyt Miller, grm. 8.57, 17x22 mm.
- d.* Commerce, Marseilles, grm. 8.29, 18x22 mm., ex Cat. Naville XII, 1926, 1313.

150 *A 63.* Same die.

P 97. Revival of die *P 85.* Athena's head larger, the *A* is not on the helmet, but beneath truncation of neck. To l. youthful winged male figure riding dolphin to r., his hands clasped round l. knee. Dolphin larger and tail bent upwards.

Pl. XIV.

- a.* London, grm. 8.23, 21x25 mm., B. M. Cat., 30, pl. XXVIII, 10. Babelon, op.cit. 135, 294, pl. CCLXXXI, 16.
- b.* Berlin, grm. 8 44 21 mm. (Löbbecke).
- c.* Cat. de Sartiges, 300, pl. XVII, 22x24 mm.

151 *A 63.* Same die.

P 98. Small Athena's head r. similar to *P 96.* To l. coiled serpent raising its head.

Pl. XIV.

- a.* E. T. Newell, grm. 8.62, 20 mm., ex Pozzi, Naville I, 1920, 1747, and Egger, 1908, 507.
- b.* Berlin, grm. 6.93, 21 mm. (Imhoof-Blumer) (not plated).⁸³

152 *A 64.* Pegasos flying r., head almost facing, second wing visible; beneath, large archaic *A*.

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P 99. Same head of Athena r., to l.
large archaic A. **Pl. XIV.**

- a.* O. Ravel, grm. 8.45, 21 mm., Hirsch XXX, 1911, 534.
- b.* London, grm. 8.30, B. M. Cat., 56, 19 mm.
- c.* Naples hoard, 35, 18 mm.

153 *A 65.* Similar to 152, but A larger and differently placed.

P 100. Similar head r., face longer;
without A. **Pl. XIV.**

- a.* Berlin, grm. 8.26, 20 mm.
- b.* Berlin, grm. 8.45, 16x18 mm. (Löbbecke).
- c.* O. Ravel, grm. 8.42, 21 mm.

154 *A 65.* Same die.

P 101. Similar head r.; to l., dolphin
downwards. **Pl. XIV.**

- a.* Palermo, 20 mm., grm. 8.20, 1526.

155 *A 66.* Similar Pegasos r., but head in
profile, second wing not visible; beneath, A.

P 100. Same die as 153. **Pl. XIV.**

- a.* Berlin, grm. 8.35, 18x21 mm.

156 *A 67.* Similar Pegasos, A differently
placed.

P 100. Same die. **Pl. XIV.**

- a.* O. Ravel, grm. 8.48, 17x20 mm.

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157 A 68. Similar Pegasos flying r., head smaller and slightly bent, fore legs bent; beneath, A.

P 101. Same die as 154. **Pl. XIV.**

a. Berlin, grm. 8.48, 20 mm. (Imhoof-Blumer).

158 A 69. Small short Pegasos, flying r.; wing very small, neck short. Beneath, A.

P 102. Same head, from the same hub as *P 101*; to l., shrimp. **Pl. XIV.**

a. Munich, grm. 8.82, 20 mm. (Egger, 1908, 503).

b. Paris, grm. 8.40, 17 mm., Babelon, op.cit. 55, Leucas, 74, pl. CCLXXIII, 14.⁸⁴

c. Vienna, grm. 8.60, 18 mm.

159 A 70. Similar Pegasos, wing parallel to the body, tail small and close to hind-quarters; beneath, large A.

P 99. Same die as 152. **Pl. XIV.**

a. O. Ravel, grm. 8.52, 19 mm.

Group C

160 A 71. Small Pegasos flying l.; beneath, A. Edge of the wing slightly curled upwards.

P 103. AMII; head of Athena to l., wearing Corinthian helmet over neck-guard, and round her throat necklace of larger beads; to r., thunderbolt with wings, the l. one over-lapping the central dart to r., as on coins of Olympia (Seltman 166). **Pl. XIV.**

a. Vienna, grm. 8.52, 17 mm.

161 *A 71.* Same die.

P 104. Better head of Athena r., without necklace; to l. eagle with spread wings standing on ram's head, as on coins of Olympia (Seltman, 320).⁸⁵ **Pl. XV.**

a. O. Ravel, grm. 8.59, 17 mm., ex Naville XII, 1926, 1320.

b. The Hague, grm. 8.55, 17 mm. (Six),⁸⁶ Babelon, op. cit., p. 126, 273.

c. Berlin, grm. 8.33, 18 mm., (Prokesch-Osten).

162 *A 71.* Same die.

P 105. Head of Athena similar to preceding, but l.; to r., eagle with spread wings holding serpent in its beak. This symbol, too, is taken from coins of Olympia (Seltman N. 123). **Pl. XV.**

a. O. Ravel, grm. 8.05, 17 mm., ex Canessa Sale, 1922, 437, Num. Chr., 1926, r. 4, pl. XX, 15.

b. Naville I, 1920 (Pozzi), 1749, grm. 8.60, 17 mm., and Egger, 1908, 506.

c. E. T. Newell, grm. 8.42.

163 *A 71.* Same die.

P 106. Head almost identical to that of Athena on P 103. Around the throat of the goddess, necklace of large beads; to r., eagle very erect to r., as on coins of Olympia. (Seltman 312.) **Pl. XV.**

a. Cambridge, grm. 8.21, 18 mm., McClean, 5116, pl. 186, 1.

b. Naville I, 1920 (Pozzi), 1679, grm. 8.50, 19 mm., and Egger, 1906, 289.

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164 *A 72.* Similar Pegasos, l., slightly larger; beneath, A, differently placed.

P 107. Head of Athena l. wearing Corinthian helmet with crest and neck-guard, no necklace; to r., spear. **Pl. XV.**

a. O. Ravel, grm. 8.25, 18 mm.

b. R. Jameson, grm. 8.52, 16x21 mm., 1115, pl. LVII, ex Sotheby, 1909 (Benson), 490. Babelon, op.cit. 126, 270, pl. CCLXXX, 9.

c. Hirsch XIV, 1905, 424, grm. 8.20, 19 mm.

165 *A 72.* Same die.

P 106. Same die as 163. **Pl. XV.**

a. Palermo, grm. 8.38, 18 mm., hoard, 983.

166 *A 72.* Same die.

P 105. Same die as 162. **Pl. XV.**

a. Cambridge, grm. 8.38, 15x17 mm., McClean, 5117, pl. 186, 2.⁸⁷

167 *A 73.* Bridled Pegasos flying l. Head large and bent, same wing as previously. Beneath, large A.

P 108. Similar head of Athena l., as on *P 107* but larger; to r., spear-head. **Pl. XV.**

a. Berlin, grm. 8.80, 18 mm., ex Hirsch XXX, 531.

b. London, grm. 8.27, 20 mm., B. M. Cat., 42, pl. XIX, 3.

c. Naples hoard, 37, 20 mm.

168 *A 74.* Pegasos unbridled flying l. head raised; beneath, A.

P 109. Similar head of Athena l., but larger, wearing crested helmet. **Pl. XV.**

- a.* E. T. Newell, grm. 8.37, 18 mm.
- b.* Berlin, grm. 8.50, 20 mm. (Löbbecke).
- c.* Berlin, grm. 8.53, 20 mm. (Imhoof-Blumer).
- d.* London, grm. 8.50, 22 mm., B. M. Cat., 43.
- e.* Paris, grm. 8.50, 18 mm., J. Babelon, Cat. de Luynes, 1888, pl. CXXI.
- f.* Naples hoard, 38, 20 mm.
- g.* G. Empedocles, grm. 8.54, 18 mm.
- h.* Hirsch, XIII, 1905 (Rhousopoulos), 2352, grm. 8.27, 20 mm.
- i.* Naville I, 1920 (Pozzi), 1751, grm. 8.56, 18 mm.
- j.* Col. Godefroy, Paris, ex Naville XII, 1926, 1317, grm. 8.28, 20 mm.

169 *A 75.* Similar Pegasos l., head less raised, same wing; beneath, A.

P 110. Similar head with slightly different profile, tail of the crest less wavy and longer; between crest and helmet a line of dots. To r., spear, point upwards. **Pl. XV.**

- a.* E. T. Newell, grm. 8.53, 19 mm.
- b.* Copenhagen, grm. 8.48, 21 mm.
- c.* O. Ravel, grm. 8.50, 20 mm.

Group D

170 *A 76.* Pegasos, unbridled, flying r. Body very fat, head bent and exceptionally small,

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large wide wing, with edge curled slightly upwards; beneath, A. Flaw between tail and wing.

P 111. Head of Athena r., wearing Corinthian helmet without crest and neck-guard; to l., thymiaterion. **Pl. XV.**

a. London, grm. 8.44, 19 mm., B. M. Cat., 54, pl. XXIX, 9. Babelon, op. cit., p. 139, 305, pl. CCXXXII, 4.

b. Berlin, grm. 8.17, 22 mm. (Löbbecke).

c. The Hague, grm. 8.50, 20 mm. (Six).

d. Turin, 20 mm.

e. Empedocles, Athens, 20 mm.

f. Commerce, Naples, 20x23 mm.

g. O. Ravel, grm. 8.50, 20x22 mm.

171 *A 76.* Same die, flaw larger.

P 112. Similar but face shorter, to l., thymiaterion. **Pl. XV.**

a. Berlin, grm. 8.34, 20 mm. (Prokesch-Osten).

b. O. Ravel, grm. 8.32, 20 mm.

172 *A 76.* Same die, fracture larger.

P 113. Similar head of Athena l., chin larger; to r., kylix. **Pl. XV.**

a. G. Empedocles, grm. 8.20, 19 mm.

173 *A 76.* Same die, fracture covers almost all the l. upper part of the coin.

P 114. Same die as previously, but above the kylix has been engraved a bunch of grapes. **Pl. XVI.**

a. Hoyt Miller, grm. 8.48, 18x20 mm.

b. O. Ravel, grm. 8.51, 20 mm.

c. Berlin, grm. 8.50, 20 mm. (Löbbecke).

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174 A 77. Pegasos flying r., smaller and better proportioned; beneath, A. Edge of the wing nearly perpendicular.

P 115. Very similar to P 114; the helmet is drawn over the goddess' eye, curls vary in number and shape. **Pl. XVI.**

- a.* E. T. Newell, grm. 8.39, 18x21 mm.
- b.* Paris, "Uncertain mints," 1098, 19 mm.
- c.* The Hague, grm. 8.10, 18 mm.
- d.* London, grm. 8.49, 18 mm., B. M. Cat., 38, pl. XXVIII, 16. Babelon Tr., t. IV, p. 138, 300, pl. CCLXXXI, 21.⁸⁸
- e.* Sotheby, 1920, 59, 20 mm.

175 A 77. Same die, small flaw near r. hind leg.

P 116. Very similar to P 114 and P 115; the number and shape of the curls different.

Pl. XVI.

- a.* Dr. E. P. Robinson, Newport.
- b.* Berlin, grm. 8.59, 20 mm. (Fox).

176 A 77. Same die, flaw larger.

P 117. Head of Athena r., similar to P 112; to l., branch of thistle with flower.⁸⁹

Pl. XVI.

- a.* Berlin, grm. 8.40, 18 mm. (Imhoof-Blumer).
- b.* London, grm. 8.60, 18x23 mm., B. M. Cat., 55, pl. XXIX, 10. Babelon, op.cit., 139, 306, pl. CCLXXXII, 5.⁹⁰

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177 *A 77.* Same die, flaw larger.

P 118. Similar head of Athena r.; to l. obelisk of Ambracia with Delphic fillet hanging to l. **Pl. XVI.**

- a.* Paris, grm. 8.56, 18x20 mm., Babelon, op.cit., 138, 302, pl. CCLXXXII, 2.
- b.* Munich, grm. 7.50 (worn), 19 mm.
- c.* O. Ravel, grm. 8.32, 19 mm.
- d.* Naville V, 1923, 2135, grm. 8.32, 19 mm.

178 *A 77.* Same die, same flaw.

P 119. Same types, the base of the obelisk is larger. **Pl. XVI.**

- a.* Berlin, grm. 8.49, 872, 17x20 mm.
- b.* Hoyt Miller, grm. 8.33, 19 mm.
- c.* Hirsch XXXI, 1912, 392, grm. 8.46, 22 mm.

179 *A 77.* Same die, same flaw.

P 120. Similar head r. Long tight curls all round the neck-guard, to l., \succ to r. Obelisk of Ambracia with Delphic fillet passing behind it, from r. to l. **Pl. XVI.**

- a.* Vienna, grm. 8.50, 18 mm.
- b.* Cambridge, grm. 8.43, 18x22 mm., McClean, 5108, pl. 185, 13.
- c.* Paris, 20 mm.
- d.* The Hague, grm. 8.55, 19x21 mm., (Six coll.).
- e.* E. T. Newell, grm. 8.41, 21 mm.
- f.* Sotheby, 1920, 54, 20 mm.

180 *A 77.* Same die, flaw larger.

P 121. Similar head r. but with only a few long curls coming from beneath the neck-guard; to r. A, to l. obelisk similar to that of 179.

Pl. XVI.

a. Vienna, grm. 8.47, 17x20 mm.

b. London, grm. 8.56, 19 mm., B. M. Cat., 50, pl. XXIX, 6.

c. E. T. Newell, grm. 8.45, 19 mm.

181 *A 77.* Same die, flaw larger.

P 122. Similar head l. with long neck. to r., dove r., to l., over helmet ΝΙΚΟΣΘΕ... (probably ΝΙΚΟΣΘΕΝΗΣ).

Pl. XVI.

a. O. Ravel, grm. 8.30, 20 mm.

b. Berlin, grm. 8.50, 21 mm. (Imhoof-Blumer).⁹¹

c. London, grm. 8.43, 20 mm., B. M. Cat., 16, pl. XXVII, 13. Babelon, p. 131, 280, pl. CCLXXXI, 1.

182 *A 78.* Pegasos with head less bent, wing raised, beneath, AM.

P 123. Larger head of Athena r. of better style; to l. female locust to r.

a. Paris, "Uncertain mints," 1112, 20 mm.

183 *A 78.* Same die.

P 124. AMΠPA, head of Athena of coarse style l., to r., spear-head, point to r.

Pl. XVI.

a. G. Empedocles, grm. 8.38, 18 mm.

b. London, grm. 8.15, 20 mm., B. M. Cat., 9, pl. XXVII, 8. Babelon, p. 130, 278.

c. E. T. Newell, grm. 8.32, 20 mm.

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184 *A 78.* Same die.

P 125. Small head of Athena l.; to r.,
ear of grain standing vertically. **Pl. XVI.**

a. O. Ravel, grm. 8.30, 19 mm.

185 *A 79.* Similar Pegasos flying r., short
body, wing almost vertical, large head, tail very
long; beneath, A.

P 126. Head of Athena l.; to r., obelisk
of Ambracia with fillet hanging to r. **Pl. XVII.**

a. London, grm. 7.95, 20 mm.

Uncertain Mints

186 *A 80.* Pegasos unbridled with pointed
wing, flying left. Wing composed of two rows
of small feathers and a row of long feathers quite
straight, second wing visible.

P 127. Head of Athena l. wearing
Corinthian helmet with very large bowl: to r.,
palmette; to l., in front of the helmet, A. Flat
coarse style. **Pl. XVII.**

a. Hoyt Miller, 812, 21 mm.

b. Vienna, grm. 8.40, 17x22 mm.

c. Copenhagen, grm. 8.29, 17 mm.

d. E. T. Newell, grm. 8.66, 20 mm.

e. Palermo, grm. 8.40, 18 mm.

f. O. Ravel, grm. 8.50, 19 mm.

187 *A 80.* Same die.

P 128. Similar to above but type to r.
to l. small palmette, to r. A. **Pl. XVII.**

- a.* Hoyt Miller, grm. 8.36, 20 mm.
- b.* Berlin (Hermann), grm. 8.62, 20 mm.
- c.* Berlin (Imhoof-Blumer), grm. 8.15, 19 mm.
- d.* Cambridge, grm. 8.59, 17 mm., McClean, 5103, pl. 185, 8.
- e.* Paris, grm. 8.66, 18 mm.
- f.* The Hague, grm. 8.56, 17 mm. (Six).
- g.* O. Ravel, grm. 8.55, 20 mm.
- h.* Vienna, grm. 8.62, 19 mm.
- i.* E. T. Newell, grm. 8.66, 20x18 mm.

188 *A 80.* Same die.

P 129. Similar to previous, to r. in front of the Athena's head, two parallel lines. (Probably die flaws?) **Pl. XVII.**

- a.* O. Ravel, grm. 8.50, 19 mm.

189 *A 81.* Pegasos to l., beneath, A.

P 130. Head of Athena to r. wearing Corinthian helmet bound with olive-wreath, over very small neck-guard, from which hair escapes in long loose locks visible on both sides of the neck. To r., over the helmet, lyre (chelys).

- a.* Naville I, 1920 (Pozzi), 1752, grm. 8.13, 20 mm. (ex Hirsch XXXI, 374—Apollonia).

190 *A 82.* Pegasos with pointed wing, slightly curled upwards, flying r., head very small beneath, A.

P 130. Same die. **Pl. XVII.**

- a.* Berlin, grm. 8.36, 22 mm. (Löbbecke).
- b.* E. T. Newell, grm. 8.38, 19x23 mm.

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191 *A 83*. Similar Pegasos flying r. Beneath, A.

P 131. Head of Athena l. wearing necklace. Fine style but very flat. To r. ear of corn.

Pl. XVII.

a. Berlin, grm. 8.58, 22 mm., 339.

b. London, grm. 8.42, 20 mm., B. M. Cat., 62, pl. XXIX, 15.

c. O. Ravel, grm. 8.53, 21 mm.

192 *A 83*. Same die.

P 132. Similar type, but to r. ear of corn placed horizontally.

Pl. XVII.

a. Berlin, grm. 8.22, 23 mm. (Löbbecke).

b. Sotheby, 1920, 61, 23 mm.

COMMENT ON THE TYPES AND THE SEQUENCE OF DIES

I PERIOD, FROM 480 TO 456

Although the coins of this period, like the corresponding archaic coins of Corinth, are rare, it will be observed that those here described are very few for so long a time as 24 years. To explain this anomaly we have to consider that before 480 B.C., the normal currency of Ambracia was represented by the Corinthian staters, probably those with the incuse patterns on the reverses. The first autonomous coins with the

civic initial of Ambracia must have been very few, and, at the beginning, just as a kind of supplementary currency, while the coins of Corinth were still the principal ones.

Several coins of Corinth have beneath the Pegasos an archaic form of koppa, ϙ, that resembles a ϕ. The tail of the letter instead of beginning from below the O, begins from the upper part and crosses it.^{92a} This peculiar letter was taken by Babelon for a ϕ, and he attributed the coin 1138 in the Jameson collection to Phytia.⁹² In the writer's collection, there are two Corinthian staters with the same ϙ on the obverse, coupled with common Corinthian reverses, like Bement 1155.⁹³ All these coins are certainly of Corinth.

Jameson's coin, from the same die-combination as another specimen in the writer's collection (XIX, 1) ⁹⁴ has the reverse from the same die as the Ambracian staters 10 and 11 (Pl. I). Furthermore, in Mr. E. T. Newell's cabinet there is another coin attributed to Ambracia,⁹⁵ the ϕ being "off flan" (Pl. XIX, 2), having the obverse from the same die as that mentioned above, but coupled with the other Ambracian obverse die as 8 and 9 (Pl. I). These three Corinthian coins prove that dies P 5 and P 6 were employed at the same time for Corinthian and Ambracian coins, and therefore we are entitled to conclude that all these coins come from the same mint and that they were no doubt coined at Corinth.

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E. Curtius in his "Studien zur Geschichte von Korinth" ⁹⁶ says that Corinth struck the coins for her colonies at first, but this statement was only conjectural, as he had no ground to support it other than the general likeness of the archaic colonial issues. The above mentioned case seems to confirm his surmise, at least for Ambracia. A close examination of the archaic dies of Corinth and her colonies would probably show that all the archaic colts were struck at Corinth. They look so much alike that if it were not for the civic initials, they could hardly be distinguished one from the other.

We know seventeen Ambracian staters with the reverse from dies P 5 and P 6 and only six Corinthian specimens with the reverse from the same dies; this seems to indicate that these two reverse dies were really made for Ambracia and only occasionally employed for Corinth.

Probably after the Persian war, to reward the colonies that helped her, Corinth authorized them to have their own currency, but either because she still wanted to have control of the finances of these colonies or because they had not yet organized mints of their own, it was the mother-city that struck the coins for them.

The Pegasos on all the archaic staters is an extraordinary one. The wing is curled and certainly ill adapted for flying, the head is big and very long, and the legs are short. The reverses,

on the contrary, show beautiful archaic heads of Athena.

It is incomprehensible that the same artist who engraved the lovely reverses, could make so bad a Pegasos. Sir Charles Oman supposes that this ugly beast was made like that for a set purpose,⁹⁷ and that it was probably copied from a well known archaic statue of Pegasos. This ingenious hypothesis would fully explain the above mentioned difference in style of the two sides of these early colts.

In all Greek series, the number of the known reverses is always much greater than that of the obverses, and this is understandable as the obverses were fixed to the anvil, while the reverses were used as a punch and received the blow.⁹⁸ Therefore this side wore out sooner and had to be changed more frequently than the other. In this period, on the contrary, we find a very puzzling peculiarity; we know 9 obverses and only 6 reverses. As the deep incuse square leaves no doubt that the Athena type is really the reverse, the reason for this abnormal proportion of dies escapes us.

The only hypothesis that could explain it is that for some special reason that we cannot guess, the surviving coins of this period are fewer than in the other series, and we may suppose that a great many other reverses existed which may turn up some day.

Group A

This group is characterized by having no symbols. Coins 1 and 2 have a lovely archaic head of Athena with the distinctive "archaic smile." Although these heads are a little flat, they are of the best archaic style.

The following coins, 3 to 7 (Pl. I), show a more advanced reverse. We no longer find the "archaic smile"; the relief is higher and the necklace is of beads, while before it was only a kind of ribbon.

All the obverses of this group are very similar, only the position of the A beneath the Pegasos and other very slight details change from one die to the other. They all look as if they had been made from the same hub.

Group B

The obverses of coins 8 to 11 show a better proportioned Pegasos and although the general appearance is always kept close to the typical early *parasemon* of Corinth, the style is better and more in accordance with Athena's head of the reverses.

In this group we see for the first time a symbol. To the left of Athena's head there is an ivy-branch. This has a decorative effect and relieves the bareness of the field; evidently its only object is to embellish.

The style of these reverses (P 5 and P 6) is

exceedingly good, and they are among the best examples of the early Fifth Century art. A peculiarity of these reverses is the earring worn by the goddess, which resembles a bunch of grapes. On several Corinthian staters, of more advanced style, we find a somewhat similar earring.⁹⁹

As said before, dies P 5 and P 6 are found curiously coupled with Corinthian obverses; on these Pegasos is flying to left—on the Ambracian obverses he is flying to right. This difference was probably necessary in the mint, in order to recognize easily the dies of the colony from those of the mother-country.

II PERIOD, FROM 456 TO 426 B.C.

The archaic coinage of Ambracia is generally attributed to the period between the Persian war (480 B.C.) and the end of the war of Corinth against Corcyra (432 B.C.). Head and Babelon both give these dates, but Prof. P. Gardner holds that Head's dates are too late.^{99a} He assumes that these early issues should be dated from 520 to 480 B.C. He supposes there was a great break in the coinage of Ambracia and that between 480 and 425 there were no coins at this mint, which did not again begin to strike pegasi, until after the disaster of Olpai.

If we examine the two series of Corinth and Ambracia, we find in the present period a striking peculiarity; almost all the first Corinthian pegasi

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after the archaic period have corresponding Ambracian coins, and the likeness is so great that one is tempted to suppose that the same die-cutters worked for the two mints. The two series are closely parallel, and there is no reason to suppose there was any pause in the coining of Ambracia, if this is not found in Corinth.

On the other hand, if during 55 years there were no colts struck in Ambracia, why should we find a coin (Pl. II, 21) muling a reverse of the first period and a reverse of the second? The reverse belongs to the middle of the first period. According to Mr. Gardner's dating, it should be dated about 500 B.C. while the obverse, which is not one of the first of this period, should be assigned to about 400–410 B.C. Therefore, if these dates were correct, die A 4 would have been in operation for at least 90 years. But if we take 480 B.C. as the date of the beginning of the Ambracian coinage and 456 B.C. for the beginning of the second period, this muling is easier to understand.

The fixing of 456 B.C. for the beginning of this period is suggested by our explanation of the symbol found on the obverses following the archaic colts (cf. p. 91); but even if this symbol does not mean what we suggest, we think that this date may be considered as exact.

Gardner's and Head's dates make the transitional style begin at 425 or 432 B.C.; this is certainly too late, if we consider the other branches of Greek art.

The end of this period is 426 B.C.—the date of the Olpai disaster; from then on, Ambracia is more nearly independent of Corinth, and we no longer find such strikingly similar coins in the two series.

Group A

In this first group the Pegasos is of a new design. The wing is still curled, but the shape quite different, and, artistically, it is even poorer than the foregoing; but owing to the wings being still curled, it is very likely that this new type of flying-horse is the successor of the archaic one. This issue marks a new epoch in the coinage of Ambracia and may correspond to the fall of Aegina.

As we have already remarked, we find in this group coins that are very like some Corinthian staters; probably at this time the same die-cutters worked in the two mints. This would explain the great similarity of style, design and fabric that we find on these first obverses and on those of Corinth with the murex-shell beneath the Pegasos.¹⁰⁰ Both issues have exactly the same Pegasos with the civic initials φ or A under its neck. Generally these are found beneath the body of Pegasos, but on these coins in their place is a symbol—on the Corinthian a murex-shell, and on the Ambracian a complicated symbol that has been hitherto differently interpreted. Owing to

the poor specimens in the British Museum, Head could not see what it really was. Describing one coin,¹⁰¹ he calls it a "rose-bud" and another¹⁰² a "pellet." Imhoof-Blumer, describing his fine specimen, now in Berlin (12a, Pl. I), explains it as "a serpent over a land-tortoise."¹⁰³ Babelon in the posthumous portion of his *Traité*,¹⁰⁴ was the first to see what it really was, viz. "a serpent fighting with a land-tortoise"; but on another coin with the same symbol, he saw only "a coquillage" (a shell).⁴⁵

What the symbol represents is a serpent coiled round a land-tortoise (*Chelonia Græca*) and striking at it. This very interesting symbol, found later, but enlarged, on a beautiful stater of Period III, 135, Pl. XII, is too elaborate not to have a special meaning. Evidently it is an historical allusion to some well known struggle, and probably the animals symbolize the fighters.¹⁰⁵

We know that the staters of Aegina were accepted universally and because of their constant type, the turtle, were commonly called the "turtles" (*χελῶναι*),¹⁰⁶ in the same way as the Corinthian staters were called the "colts" (*πῶλοι*), from their type.⁹ Turtles and colts were strong competitors in the commercial world of the time. This competition and the fact that Aegina greatly handicapped the development of Corinthian influence and trade in the Peloponnesus and was a constant menace to her, induced Corinth to

side with Athens in the long fight against Aegina.¹⁰⁷

When in 456 B.C., Aegina became tributary to Athens,¹⁰⁸ it is most unlikely that the latter would have allowed the striking of the "turtles" which competed with her own "owls," in the commercial market.^{108a} The coinage of the "turtles" therefore must have come to a stop at the time. Erichthonios (Ἐριχθόνιος), son of Hephaistos and Atthis, and pupil of Athena, was the first ruler of Attica after Kekrops and was often represented as a serpent.¹⁰⁹ We may, therefore, assume that a serpent may symbolize Attica or Athens. If so, the symbol we find on the Ambracian staters may be an allusion to the ending of the Aeginetan coinage, as a consequence of the conflict between Athens and Aegina. The serpent Erichthonios, symbolizing Athens, ^{109a} has a "turtle" (χελώνη) ^{108b} in his coils; in other words, through Athens the "turtles" have come to an end.

Corinth fostered the diffusion of her currency and through her money she held her colonies together and tightened relations with others. She (and therefore her colonies) considered the colts as a kind of national flag, of which they were proud.¹¹⁰ We can therefore understand that the stopping of the coinage of the "turtles" was an event of the greatest importance both for Corinth and for her colonies, and a reason for great

rejoicing. From this moment the "colts," no longer having this competitor, would be able to fly unfettered, passing over the fallen "turtles."

If such is not the intended meaning of the symbol, it has certainly been an omen that has proved true, as very few other coins had such a large circulation and such a wide success as the *πῶλοι*.¹¹¹

This symbol is very important as it permits us to fix the date of the issues of this period—these coins must have been issued shortly after the stopping of the coinage of Aegina, about 456 B.C. The reverses P 7 and P 8 of beautiful transitional style are very like the reverse of the Corinthian stater in the Museum of Berlin illustrated by Oman, the same head of Athena l. without neck-guard, with the same hair in long locks over the neck. Undoubtedly, these reverses are the work of the same artist.

The reverses, P 7 and P 8, show a remarkable peculiarity. On the top of Athena's helmet stands a butting bull. There is no doubt that it really stands on the helmet—one can distinctly see that the legs touch the helmet. This anomaly did not attract the attention of numismatists; the bull seems to have been considered as one of the numerous symbols we find in the field near the Athena's head. Head, although he noticed that the bull was standing on the top of the helmet,¹¹² made no comment; he must have considered

the abnormal position of the bull as a fancy of the die-cutter; in fact, he placed coin 17*a*, Pl. II, near 111*c*, Pl. X, just because this last had for a symbol the forepart of a butting bull.¹¹³ Imhoof-Blumer noticed this peculiarity too, and describing his 12*a* (Pl. I) says: "taureau se cramponnant au casque" (bull clinging to the helmet).¹¹⁴

Die P 9 on coin 14 (Pl. II), now published for the first time, from the only known specimen in the writer's cabinet, shows a similar butting bull, but in an even more extraordinary position. It stands no longer on the top of the helmet, but is butting vertically downwards, on the neck of the Goddess. Its hind-feet are on the lower edge of the helmet and the left fore-foot touches the neck-guard.

If we compare the dies P 7 and P 9 it is evident that the bull is not an ordinary symbol; it does not stand alone in the field, but is an integral part of Athena's helmet. On the other hand, its very strange position, once on the top and once almost falling off it, suggests the idea that this bull is walking about on the helmet. It must represent some local legend about Athena that we have not been able to trace.

This same coin, 14, shows for the first time a neck-guard under the helmet, which afterwards is constantly met, with but few exceptions, on all the staters of Corinthian types. This part of the

helmet was often called a leather cap; the writer submitted the reasons that seem to prove that it was really a neck-guard, in "Notes on some rare and unpublished Pegasi of my collection."¹¹⁵

Dies P 10 and P 11 have for symbol the kerykeion, of which we have already spoken. We shall find it constantly repeated in the following groups.

All colts of this period have a deep incuse square.

Group B

Beginning with this group, the Pegasos changes completely—the conventional *parasemon* of Corinth and her colonies, the extraordinary animal with curled wing is definitely abandoned. From this moment, the wing is adapted for flying and the body is that of a real horse. We find the same evolution on the corresponding Corinthian issues. The Pegasos we find on die A 14 still shows a certain archaic stiffness; the hind-legs, for instance, remind us of those of the first Pegasoi.

No. 21 (Pl. II), the first coin of this group, has a reverse coming from an old die (P 4), that shows traces of long wear as several fractures may be seen. Such anachronistic couplings of dies, although rare, are found sometimes even in other series. Seltman¹¹⁶ explains a similar case observed in the mint of Olympia. We may suppose that the old die, lying idle for years in the mint,

has been put into use again either by mistake or in order to replace temporarily a broken die. The fact that we know but one specimen from these dies (in Mr. Newell's collection) proves that it is something in the nature of an exception.

Coin 22 from Mr. Newell's cabinet, looks very similar to a Corinthian stater of the same epoch. (Cf. Num. Chr., 1909, Pl. XXVI, 9.) On the Corinthian coin, the goddess wears earrings and there is a trident turned downwards in the field. Apart from these differences the two coins look very much alike. The same long curls fall down to the back of the neck, from under the helmet, which is without neck-guard, and there is the same long profile. These dies look as though they were made by the same artist.

The following coin, 23, in the writer's cabinet, has also a corresponding Corinthian stater. (Cf. Num. Chr., 1909, Pl. XXVII, 13.) On the Corinthian coin the first two curls are longer; this is the only difference.

These two Ambracian colts, now published for the first time, not having any visible initial, were placed under "uncertain mints" both in Mr. Newell's and in the writer's cabinets, and it is only through the other coins 21 and 24, with the same obverse, that we can attribute them beyond question to the Ambracian mint.

The obverses A 16 and A 17 show two beautiful Pegasoi; both are very similar. The horses are

well proportioned and the wings large and well drawn. The principal difference lies in the size. The sequence is therefore well established with the following coins.

Nos. 27 and 28, both known in a single specimen only, have no neck-guard under the helmet, a sure sign that they are among the earliest coins of the series and that they follow 22 and 23. Henceforward, the goddess always wears a neck-guard. The hair of Athena on 27 is treated in the same way as on the previous dies. There are the same long loose locks falling from under the helmet and covering the neck. Nos. 27 and 28 are closely similar and are certainly made by the same die-cutter. They are among the finest staters of Corinthian types.

No. 29, Pl. III, in the British Museum, was placed by Head under Dyrrhachium (but he was in doubt about this attribution) ¹¹⁷ probably owing to the symbol—the club, generally found on coins of this mint. Even if the obverse, A 17, was not coupled with the two reverses P 16 and P 17, the style of them is so alike that there can be no doubt that they both belong to Ambracia.

Another similar specimen, No. 30, Pl. III, but from slightly different dies, now in the writer's collection, was also attributed to Dyrrhachium in the Naville XII catalogue, following the catalogue of the British Museum. The club is a very exceptional symbol on the Ambracian colts. We

know of no other attribute of Heracles used as a symbol in all the series. In the Berlin Cabinet there is a colt from the Prokesch-Osten collection, under Ambracia, with a club behind the Athena's head (Pl. XVII, 1), but this coin belongs to Alyzia.¹¹⁸

Of twelve die-combinations out of the thirteen composing this group, we can trace only one specimen of each. They are certainly among the rarest colts of Ambracia.

Group C

This group is connected with the previous one through the Pegasos of die A 22, which is very like the one on dies A 19 and A 17, though details differ. Die A 22 and A 23 are very similar, and we find them coupled with several quite different reverses. Not only do the symbols vary on these reverses, but the design and the style are also quite different.

In this group, too, we find a coin having a striking likeness to the contemporary Corinthian issue. Die P 27 shows an Athena's head, wearing a wreathed helmet, very similar to the head on the Corinthian Pegasos in Berlin, illustrated by Prof. Oman in Num. Chron., 1909, Pl. XXVII, 16. This olive wreath which appears now for the first time either in Corinth or in Ambracia, is often met in the next period.

After a time, die A 23 shows traces of wear, and

in some places fractures begin of which the progression can be followed. On some specimens the alteration is so great that the shape of the Pegasos' head seems changed. The sequence of the types can therefore be established with great certainty.

Coin 34, Pl. III, shows an obverse struck from a very fresh die and a reverse P 22, which is an exact copy of die P 10 of Period II. This coin is certainly the first of the group.

Coin 36, Pl. III, is known only from the specimen in the British Museum where it is placed under "Uncertain mints."¹¹⁹ This coin finds its right place in this group, the obverse being from die A 22. The style and the general appearance are those of Ambracia, and Babelon had correctly ascribed it to this mint.¹²⁰ The symbol on this coin is a remarkable one; we never come across it at Ambracia again. It represents a sword in its scabbard.

The kerykeion is found again in this group on dies P 27 (a copy of die P 11), P 23, P 29 and P 26. On this last one of the best style we find an Athena's head of serene beauty. Behind it, in the field, there is a symbol that although really only a kerykeion, is of a very complex and elaborate shape. To the writer's knowledge it is quite unique and hitherto unpublished. This symbol is formed of a kind of circle, with twelve pellets disposed round it, in four groups of three each, forming four corners outside it. The

kerykeion crosses this wreath vertically and near the shaft, inside the circle, there are two more pellets on each side of it. What this symbol may mean is rather difficult to conjecture. Only four coins are known with it and on one only (in Berlin) is it possible to see it distinctly, which may account for the fact that nobody has noticed it before.

Another beautiful reverse, of very good style, is P 28 (Pl. IV). On it, we see a remarkable little flying Nike; at first sight we would be justified in supposing she is crowning Athena's helmet. Grose, in describing the specimen in the McClean collection, takes the Nike for a flying Eros and supposes the coin to be the same as 120 (Pl. XI). The lovely flying figure is certainly a Nike—the confusion is due to the McClean specimen being very poor. What the Nike holds in her hand is not a wreath, but a kind of knotted fillet, outstretched in a straight line in front of her.

Babelon in "*Mélanges et Documents*" ^{120a} speaks of similar fillets. He illustrates some coins of Sicyon with the flying dove carrying a fillet in its beak (Fig. 6, 7), and others with a naked youth holding the same fillet over his head (Fig. 1, 2, 3, 4 and 5). He quotes Fougères' definition, ^{120a} which says that these fillets were made of knotted wool. Similar fillets are found tied on the top of the obelisk of Ambracia on the staters 177 to 180 (Pl. XVI). Some coins of Croton (Cf.

Head, *Hist. Num.*, p. 96, fig. 53 and 54) represent a tripod adorned with fillets. One (fig. 54) has two fillets hanging from the Tripod; on one side is Apollo and on the other, the Python. The other (fig. 53) shows only one fillet tied to the handle of the tripod and the lower end of it raised. There is no doubt that both coins reproduce the Delphic tripod; and the raised end of the fillet on the second coin is certainly meant to indicate that it was dangling in the wind that blew from the crevice over which the tripod stood in the Adyton.

All these coins reproduce the Delphic fillet, which was probably made of wool or of another similar material, but always very light, as the wind was able to sway it.^{120b} The shape is always the same; it is a cord with a long series of balls or knots, without any space between them and ending with a tassel, probably of the same material. The fillet that the Nike holds on the Ambracian colt is quite different. It is exactly the same as the one we find in front of the Apollo's head, on the beautiful tetradrachm of Catana, by Euainetos (Cf. B. M. C. Sicily, No. 55). It is formed of a cord or ribbon with four pellets and ends in a bell-like object, probably metallic. On a stater of Velia by ΦΙΛΙΣΤΙΩΝ, there is a Nike very similar to the one on the Ambracian colt flying to left, over the lion; she holds in her hands an object that was taken for a wreath, but Poole doubted it was really one.¹²¹ On the very

fine specimen in the collection of Mr. E. S. G. Robinson, who kindly allows me to illustrate it (Pl. XVIII, 3), we can distinctly see that this Nike holds the same outstretched fillet.

This fillet is not supposed to have been made of a rigid material; it is a cord, a ribbon or a chain, and this is confirmed by the Catanian coin, where it encircles Apollo's profile, conforming to the shape of the die. But if this fillet is not rigid, how could the Nike possibly hold it in a straight line in front of her while she is flying? In the flight it would naturally slant toward her and not precede her. On the coins of Sicyon, illustrated by Babelon (figs. 6 and 7), the flying dove holds a fillet in its beak which falls in the logical position that a ribbon or cord would take when carried.

To explain this abnormal position, we need not suppose that the die-cutter was ignorant of the laws of gravity. The fact that two coins, of different dates, and of places so far apart as Ambracia and Velia, show this same strange position, is evidence of a set purpose. The only possibility is that Nike is swinging the fillet to and fro, during her flight, just as the incensorium is swung in the Roman Catholic Church. We may conjecture therefore that the die-cutter reproduced such a swinging movement.

This leads to the supposition that this fillet may be a swinging *θυμιατήριον* or incense-burner, the

bell-like ending being the burner. The existence of such thymiateria is known; and in the Museum of Naples there is a specimen formed by a box-like burner, hanging to a chain, very similar to the incensorium.¹²²

In the writer's collection there is another colt, but of Corinth (Cf. B. M. C., No. 334), on which, next to Athena's head, there is a flying Nike carrying a thymiaterion. We may deduce that this Nike is burning incense in honour of Athena, just as the Nike on the Ambracian coin does over the head of the Goddess. The only difference between the two would be that one Nike uses a standing thymiaterion and the other a swinging one.

Several colts of Anactorion have as symbol a thymiaterion and fillet. They all belong to the same epoch, and Imhoof-Blumer describes them under 96, 97, 98.¹²³ These three coins are illustrated on Pl. XIX, 4, 5 and 6. The following cuts show the symbols on these coins enlarged.

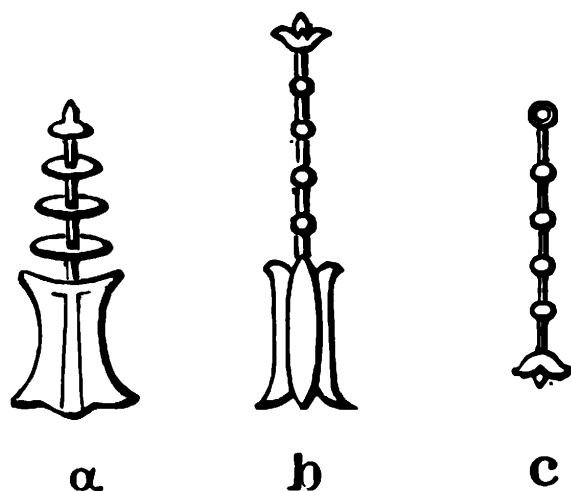
a is the usual thymiaterion.

b is a thymiaterion too, but with four knobs on the rod and a kind of flower-like burner.

c is the so-called fillet. On one end there is a ring to hold it, the same knobs are on the string; and at the lower end there is the same flower-like burner.

It is very likely that all these represent thymiateria, but of differing shapes. The only

distinction is that *b* has a pedestal and is therefore a standing thymiaterion, while *c* has a ring to hold it and is therefore a swinging one. The latter is the one we see Nike swinging over the helmet of Athena on the die P. 24. Several reverses of this



group are beautiful specimens of the art of the Fifth Century, as P 26 and P 28, but coupled with the same obverse A 23, we find the reverse P 29 (Pl. IV) that shows a head of Athena that is really extraordinary for this period. If it were not coupled with the same obverse, nobody would have thought it could belong to the Fifth Century. This head is of the most awkward style, the eye bulgy, the chin large and the neck-guard too big for the helmet. If we were guided by style only in establishing the chronology of issues, this coin might be placed nearly a century after the staters, Nos. 38, 39 and 40.

The difference of style is such that we cannot suppose die A 23 had laid idle in the mint and then been used again. Besides the following die, P 30 (Pl. IV), although slightly better, shows a remarkable likeness of style; evidently the same die-cutter made the two dies—we can still see the same protruding eye and the same clumsy manufacture. Obverse A 24 coupled with this die, is practically identical with A 23, and only minute details permit us to see that it is another die.

Coin 42 is therefore not a chance coupling with an old die, but a coin that really belongs to this group. Consequently dies P 29 and P 30 are evidently the work of an unskilled die-cutter who followed good artists in the mint of Ambracia. This proves how misleading it is to rely on style alone in establishing the chronological sequence of an issue, and confirms once more the desirability of study of the die combinations.

A remarkable symbol is found on coin 43. It represents the sacred conical stone (*βαιτύλιον*) of the Apollo *Ἀγνιεύς* who was worshipped in Ambracia.¹²⁴ We again find this obelisk of Ambracia, on the last silver issue of the mint, and afterwards it becomes the principal type of the bronze coins.¹²⁵

On coin 43 c in the Museum of Athens, there is a sort of crescent over the obelisk; probably it is accidental, as in all other particulars it corresponds to die P 30.

III PERIOD, FROM 426 TO 404 B.C.

After the disaster of Olpai, Ambracia made a truce of one hundred years with her neighbours, the Amphilocheians, and through not taking any direct part in all the wars that went on in Greece, she soon recovered from her losses and reestablished her former flourishing condition. This is proved by her beautiful coinage. The present period begins with the peace with the Akarnanians and ends with the fall of Athens, in 404 B.C.

Although we have no direct proofs, knowing that Ambracia was always faithful to the mother-city, we may suppose she stood by Corinth in the great war against Athens, whose fall must have been particularly pleasing to the Ambracians, and worthy of being recorded on an issue of coins. The wreathed staters that close this period may have been issued to commemorate this event.

Group A

In this group, we find some obverses on which the Pegasos is of very poor style. If it were not for the reverses P 29 and P 30, we would be rather at a loss to place them in sequence. A 26, Pl. IV, especially, shows a Pegasos that is a very ugly beast with thick legs and completely out of drawing. Evidently it is the work of the die-cutter responsible for P 29 and P 30. The very bad style of these dies may be explained by the hypothesis

that after the disaster of Olpai, the mint was obliged to employ a poor die-cutter, the only one they had at hand in that moment of crisis. The sequences of dies is surely established, the Pegasoi look all more or less related to each other, although of better style than A 26. A 25 stands alone, but the reverse coupled with it is P 31 that is generally found with A 26 and A 27.

Two obverse dies, A 27 and A 28, are found coupled with die P 26 which belongs to the previous group.

A remarkable peculiarity of this group is that there is no civic letter on the obverses, while in Period II there is always the A beneath the Pegasos. All the reverses have the same symbol, the kerykeion.

Group B

This group is connected with the previous one through A 31, which is very similar to A 29.

All the coins of this group show a deep incuse square, which is a sign of archaism. This technical peculiarity is abandoned in the following groups. Like the obverses of group A those of this group, too, have no civic letter beneath the Pegasos.

The reverses are all very similar, save for the change in symbols. We find a strung bow, an ivy-leaf, a running hound and a crane. They seem to be merely ornamental and are all placed in the

same way in front of the Athena's head. Owing to these symbols and to the omission of the civic initial under the Pegasos, several coins of this group have been attributed to other mints. No. 54 was ascribed by Imhoof-Blumer to Alyzia, because of the bow that is generally found on these coins, and No. 57 to Argos because of the dog.

Babelon repeats these attributions, but it escaped his attention that he was placing exactly the same coins under Ambracia too, when he was speaking of the specimens of the British Museum described by Head under this mint. This case is an interesting evidence in favour of the study of the die-combinations; and a glance at Pl. V will convince anyone of the importance of the obverses in the classification of the colts.

Group C

Although between groups *B* and *C* there are no direct links, the peculiarity of the missing civic initial on the obverses is enough to show that the two groups are related, as afterwards this *A* appears again; besides, we still find a very deep incuse square on some coins. The first obverse of this group *A* 32 (Pl. V) shows a Pegasos with a wing that is partly effaced—only the ends of the feathers can be seen. The second, on the contrary (*A* 33), shows the wing formed of three feathers in very high relief. One might be

tempted to think that the die has been awkwardly recut.

Reverse P 41 has a symbol representing a human figure. It is placed in front of the helmet and seems either to climb over it or to dance in front of it.

Reverse P 42 shows the same figure, but larger and better modelled. On this we can see a small tail. It therefore represents a Satyr.

Group D

The link between this group and the preceding is coin 64 (Pl. VI). The reverse P 43 is very like P 42. The style is identical, Athena's head and the symbol, again a little human figure, are of the same technique.

The Pegasoi on obverses A 35 and A 36 are radically different. Coin 65 (Pl. VI) is the coupling of dies A 35/P 44; we find coin 66 from dies A 35/P 43, P 43 being the previous reverse. This coin 65 has an owl for a symbol, and it is very likely that the other coins with the same symbol and coupled with obverse A 36 and A 37 belong to the same issue. Die P 43 has a remarkable symbol—a naked winged male figure, holding a taenia in his hands—can this be Eros? The other symbols are all apotropeia; the owl (*Athena noctua*), the fly and the crab.

Group E

The first obverse of this group, A 38, has exactly the same Pegasos as 39; it is merely smaller. Although the reverses are quite different, there is no doubt that coins 75 and 76 are closely related.

Reverse, P 50, is very interesting; a similar wreath of ivy leaves is found on a coin of Leucas (B. M. Cat. Pl. XXXIV, 15). Probably 75 inspired the coin of Leucas. The obverses A 39 and A 40, instead of having only the civic A, have AM beneath the Pegasos; and the reverses coupled with them have no longer the A only, but the full ethnic, AM or AMII.

Coin 76 has the ethnic for the first time but retrograde. This inscription prompted Head to place the coin immediately after the archaic issues.¹²⁶ This retrograde ethnic cannot be considered as a sign of archaism. It is more probable that it was made so because the die-cutter was not used to engraving inscriptions; the omega instead of omicron confirms it.

Coin 77, of which we know one specimen only, has a spike-fish as a symbol; it is possible to recognize its species. Probably it represents the *Scorpena porcus* that is still common in the Gulf of Ambracia.

Coins 78 and 80 have reverses that seem different but are probably the same die. In front of the Athena's head P 53 has AMII and P 54 AM and in the place of II, a locust.

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On the plate is illustrated the Paris specimen 80 c, but this is very poor and the locust looks like a flaw. Only on 79 in the de Sartiges collection can one distinctly see that P 53 and P 54 are probably the same die, on which a locust has been cut over the II.

Group F

This group is composed of three obverses that show very minute differences, the first two reverses coupled with A 41 still show a very deep incuse square—indeed, P 55 has a linear frame within the incuse square, and this is quite exceptional in the Ambracian series. Some of the reverses coupled with the same A 41, have, on the contrary, no trace at all of an incuse square; these have a wreath of laurel leaves round the Athena's head. The deep incuse square that we find on the first two coins of this group, 81 and 82 (Pl. VII), disappears completely afterwards. We may therefore infer that all these coins have been issued at about the time when the habit of making the reverse-dies on a square punch was abandoned.

It seems that the incuse square on Greek coins generally ceases after 400 B.C. Naturally it still remains on those coins that are deliberately made to look archaic.¹²⁷ Regling brings down this date to the beginning of the fourth century.¹²⁸

M. Vlasto, in his recent exhaustive study of the coinage of Alexander, son of Neoptolemos,¹²⁹ expresses the opinion that the above-mentioned wreathed staters may have been issued as a tribute to Alexander, during his stay in Ambracia, before he sailed for Italy in 334 B.C. He bases his hypothesis chiefly on the symbol, the thunderbolt, which was the Molossian signet. In the first place we know that the mint of Ambracia was closed in 338 B.C., therefore the coins would not have been issued after this date. Furthermore, all the coins of this group share the same obverses, and are therefore contemporary, so if we accept M. Vlasto's dating for the wreathed staters, we should have to bring down the coins with the incuse square to about the same date, which is certainly impossible.

Besides, if the thunderbolts on the staters with the wreath are similar to the Molossian badge, those on the two coins with the incuse square are certainly very different. Both parts of the thunderbolt on the Molossian coins are the same, while on the Ambracian dies P 55, P 56 and P 57 one part is formed by two volutes curled outwards and three waved flame-lines; the other part is shaped like a lily-bud. These thunderbolts look more like those we find on some coins of Olympia.¹³⁰

Our hypothesis is that the wreathed staters were probably struck to commemorate an im-

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portant victory. The only event that can have left such a mark on the Ambracian currency is the fall of Athens. Although this was certainly not an Ambracian victory, the fact that this colony was always very closely related to the mother-city, and probably helped Corinth in the great war, explains that the Ambracians may have considered it as their own victory too. The grudge Ambracia must have had against Athens owing to the terrible defeat inflicted upon her by the Athenian Demosthenes, fully justifies her rejoicing at the fall of Athens, an event worth commemorating with an issue of coins.

We have already seen that the wreathed staters, 84, 85 and 86, have the obverses from the same die A 41, which is found coupled with the reverses still showing the incuse square, and that this disappears completely afterwards. All these coins must therefore have been issued at about 400 B.C., the date generally accepted for discontinuing the square punch for the reverses. This date would permit the belief that the wreath of laurel-leaves may commemorate the fall of Athens, and therefore we suggest for the end of this period the date of 404 B.C.

Coins 83 and 87 have a very small κ between the thunderbolt and the helmet. This letter is so small that it can be seen on very fine specimens only. The size of the letter may suggest that it is the signature of an artist; this would be the first instance of a signed Ambracian colt.

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IV PERIOD, FROM 404 TO 360 B.C.

After the end of the Peloponnesian war we know of no other event that might have left marks on Ambracia's coinage. Fixing the end of Period IV as 360 B.C. is more for the sake of convenience than because of any historical data.

In all the former periods, the symbols, with a few exceptions, are simple and inconspicuous. In this period many of them, especially in groups *B* and *C*, are statuesque in form, and often on a comparatively large scale.

Neither in the coinage of the mother-city, nor in that of her colonies, do we find a series that can be compared with the colts of this period. They are certainly the most interesting and charming of all staters of Corinthian types. Artistically many of them are not out of place among the finest Greek coins.

Group A

The first obverse of this class, A 44, is found coupled with seven reverses. They differ considerably in style, and if the sequence of the dies did not prove it, one would not think they belonged to the same issue.

This obverse A 44 after the first two coins 90 and 91 (Pl. VII), begins to show small flaws under the Pegasos. Two small linear flaws near the A transform this letter in some cases, to a sign that

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is very similar to the monogram of Anactorium,¹³¹ This coincidence accounts for the attribution by Head of coins 93 and 94 to the mint of Anactorium. For the same reason in the Cat. Hirsch, XXX, our 92 and in Cat. Egger, 1908, our 93 are given to the same mint.

Before noticing that these coins, 93 and 94, had their obverses from the same dies as other Ambracian staters, their general appearance and the large civic initial, the archaic A of peculiar shape, so characteristic of the Ambracian coins,¹³² prompted placing them under the coins of Ambracia.

On coins 90, 91, 93, 94, 95 and 96, we find for the first time letters in addition to the civic initial. This is exceptional in the Ambracian mint and it is not clear what these letters mean. If they were magistrates' initials one does not understand why they should be only on these six reverses coupled with the same obverse die A 44. And why are they of different sizes and placed all round Athena's head? They look as if they did not belong to one name, but to different words.

On die P 61 under the Goddess' chin there is Δ, and behind the head Ϸ.

On die P 64 under truncation of neck AH, and over the helmet, to left, Ζ.

On die P 65 under the neck HA, and over the helmet the same large Ζ.

On dies P 66 and 67 before the civic initial,

almost in connection with it, a retrograde N.

The large Σ situated opposite the civic A of about the same size, is certainly not a sigma but a M and belongs to the ethnic.

We have already found on die P 57 a small κ that may be a signature initial, but the only ground to support this hypothesis is the size of the letter. But now on dies P 61, P 62 and P 65, we find a very minute A which is certainly the initial of an artist's signature.¹³¹ In this case there is not only the size to support this statement. The other letters on the coins, besides the civic initial, prove that it could not be a magistrate's initial. And the position chosen by the die-cutter for this small A, once in the folding of the neck-guard (P 61 and P 62) and once under the elbow of the little figure of Pan (P 65), leaves no doubt that it is really the signature of an artist.

These two A's are so small that they are hardly visible on the plate.

The symbol on P 63 generally described as a locust is really a cricket (*Grillus campestris* or *domesticus*); the size of the head and thorax and the short elytrae, make it easy to distinguish this insect.

The branch on P 64 was described by Head as a climbing plant,¹³³ and by Babelon as an ivy-branch.¹³⁴ But coin 176 (Pl. XVI) proves by the flower that this is a kind of thistle.

Dies P 66 and P 67 show a head of Pan in pro-

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file, and P 65 a Pan with goat's head and legs, holding a branch over his shoulders.¹³⁵

The Pan symbols on these coins prove that his cult was held in honour in Ambracia, probably owing to herding of sheep and goats in the country.¹³⁶

Group B

The link between the former group and this is given by coins 98 and 99. These have the reverses from dies P 64 and P 65 that belong to Group A, but have an obverse die A 46 that we find afterwards coupled with reverses P 68 and P 69 of quite different style and that have always been considered as belonging to an earlier epoch.¹³⁷ That the sequence of dies P 64, P 65, P 68, P 69 is correct, is proved by the wear of die A 46. When coupled with P 65, it is fresh and the A beneath the Pegasos distinctly visible, when with P 68 and P 69, on all the 15 specimens we know, it is more or less effaced, and on some, of very good preservation, one would hardly suspect it ever existed.

It is certain therefore that the reverses of this group follow those of group A.

All these reverses show a constant type of Athena's head, which is of a peculiar style. The eye of the goddess is almond shaped and almost full-face, the neck-guard large and rounded.

They have an archaic aspect which is not in

accordance with the other details of a more advanced style.

Some earlier Leucadian staters ¹³⁹ show exactly the same head of Athena, and we may suppose the Ambracian heads were copied from Leucadian colts, (or vice versa) or that the heads may have been copied independently from a well-known statue or type of Athena. In any event, it is clear that these heads are purposely archaistic.

On coin 106 (Pl. X) we find a lovely girl, in a most realistic style, playing at kottabos. The contrast between this charming little figure and the full face eye of the goddess is striking. A great contrast of style exists too between the two sides of the coins of this group. Dies P 68 and P 69 are first found coupled with the above mentioned A 46, which shows a very poorly modelled Pegasos. The body is long and thin, the neck too long for the small head, and the extraordinarily long tail is almost as long as the body of the horse.

The other obverses improve by degrees and A 49 is the best of all. On this we find for the first time an A on the hind-quarters of the Pegasos. As we find beneath it the civic initial A, we are justified in supposing that this A may be an artist's signature, probably the same that made the beautiful reverses of this group.

We know only coin 108 with this obverse. This coin now in the writer's collection passed through two sales (Hirsch XXXI, and Naville VI) and

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nobody noticed this peculiarity, although the A is very distinct.¹⁴⁰ The dies of this group interchange frequently and thus establish the chronological sequence of the coins.

A remarkable peculiarity of this group is that almost all reverses have the ethnic inscribed at full length, but the variations of its spelling are surprising.

On die P 68 and P 69 there is:

AMIIPAKIIOTAN.

On dies P 70 and P 73 the omicron is replaced by omega, and on die P 71 the B replaces the II.

On die P 84 (Pl. XI), which we now find coupled with two obverses belonging to the following group but which we are convinced will be found some day coupled with the same obverses belonging to the present group, we read: AMIIPAK-IIOTAN, but the II on coin 124 is larger and heavier than the other letters, and it looks as if it had been recut over another letter, probably B.

It is not easy to explain this variation in spelling on coins that are so similar. Dies P 68, P 69 and P 70 are certainly made by the same artist and dies P 71 and P 84 by another—Imhoof-Blumer remarked that these two last are probably the work of the same die-cutter.¹⁴¹

We might suppose that this group of reverses was issued at the time of the change of the archaic O to Ω, but as we have on an earlier coin the full

retrograde ethnic spelled ΑΜΠΡΑΚΙΩΤΑΝ (76, Pl. VII), we are inclined to believe that the omicron intentionally replaces the omega on these two dies in order to be more in keeping with the archaistic head of Athena.^{141a} Cousinéry had noted the use of Β and Π on these coins, and he explains it.¹⁴² As there is only one die with Β, and another, probably by the same artist, with a Π that seems to be cut over another letter, we may be justified in supposing that this Β was a mistake of the die-cutter, who corrected it afterwards on another die.¹⁴³ The mistake is easily comprehensible if we consider that the Π is pronounced nearly as Β after Μ.

The first three symbols we find on the coins of this group, are the tripod, the lyre (chelys) and the flaming-torch. All three are attributes of Apollo Ἄκτιος, who was jointly worshipped by the Akarnanians and the Ambracians, in the famous temple of Aktion. He was considered as the protector of navigation,¹⁴⁴ and therefore it was quite natural that Ambracia who owed her wealth chiefly to her commercial fleet, should honour Apollo Ἄκτιος.

The flaming-torch is not a usual symbol of Apollo,^{144a} but on a coin of Akarnania,¹⁴⁵ we see Apollo seated on a rock, and in front of him a flaming-torch, and this Apollo is undoubtedly the Apollo Ἄκτιος. The symbol is therefore not only an attribute of Apollo, but it proves that the coins

were issued under the protection of the God worshipped in Aktion.

Die 71 shows a symbol, that is one of the most remarkable and interesting that we find on a stater of Corinthian types.

Helbig has explained that the charming girl standing near the pole, is playing at kottabos.¹⁴⁶ Head repeats this explanation, and says that the girl is balancing the scale or *πλάστιγγ* on the point of the rod that the players may throw their wine at it. Half way up the rod is a basin *κοττάβειον* to catch the wine, or perhaps the scale itself as it fell on being struck by the successful thrower.¹⁴⁷ Imhoof-Blumer describes a vase where there is a maenad in the same attitude as the girl on the Ambracian colt, between two dancing satyrs who take part at the game with cups in their hands. He believes that the girl represents a nymph.¹⁴⁸

The exquisite modelling of the girl, the graceful movement of her body and the pose of her lifted head, make of this charming little figure a real master-work. The contrast between this realistic figure and the conventional Athena's head is striking, as we have already observed, and is evidence that the coin cannot be placed at an earlier period.

Reverse P 74 on coin 111 (Pl. X) has an Athena's head similar to all the others of this group. The eye is still full-face. The symbol, the fore-part of a butting-bull, prompted Head ¹⁴⁹

to connect this coin with 12 (Pl. I) of the second period, the butting-bull on top of Athena's helmet. The type of the Athena, and the obverse which is only a reduction of those preceding, are sufficient proofs that the coin belongs to this group.

No. 113, one of the last of the group, is rather a puzzling coin. If it were not that the obverse is from die A 52, the same found on 111 and 112, it would certainly not be placed here. The head of Athena is of a quite different style and the incuse square would indicate that this die belongs to an earlier period. But all the known specimens are found coupled with the obverse A 52; and although the coin is one of the most common colts of Ambracia, of which fifteen specimens are recorded, they all come from the same pair of dies.

To explain this anachronistic reverse, we may postulate that the die was made at an earlier epoch, and for some reason discarded or put aside. After a long time, in a moment of great need, the available dies being insufficient—perhaps to replace a broken die—it was used for the first time and in conjunction with the obverse-die in use at the moment. The symbol on this coin probably represents the prow of the vessels Argo (Ἀργώ) or Pelias (Πηλιάς), made from wood taken by Athena from the holy oak of Dodona, in which the sacred doves (πέλειαι) nested. It may therefore be considered as a totem of them.¹⁵⁰

Group C

The three obverses of this group A 53, A 54 and A 55 are of the best style. The prancing Pegasos is well proportioned, the wing large and well drawn and in keeping with the beautiful reverses. The last two have an A on the Pegasos' hind-quarters, such as we already found on die A 49, but the civic initial is no longer on the obverse. On the first die A 53, this A is not visible, but as this letter can be seen on very fine specimens only, and as our only examples so far have a rather worn obverse, it is highly probable that this die too has the same initial in the same place, the more so, that the other die A 56¹⁵¹ shows also the same letter on the Pegasos' hind-quarters.

All these obverses have no letter beneath the Pegasos. It is therefore possible that the civic initial has only changed its place in copying die A 49 on which it probably represented the artist's signature.

The link that relates group B to the present one is given by coins 106 and 115, which have reverses from die P 71 with the beautiful girl playing at kottabos. The sequence of the coins of this group is well established as the dies interchange frequently. We can trace the progression without interruption.

These colts are certainly the finest among all the staters of Corinthian types, and they are of

the greatest interest for the variety and importance of the symbols, which should no longer be called symbols, but, rather, Ambracian types, added to the conventional Corinthian types of the Pegasos and Athena's head.

The girl playing at kottabos is the first of these Ambracian types; the second is a very important one, representing the historical founder of Ambracia. Only two specimens are known with this reverse P 83. One coupled with A 54 was in the Rhousopoulos collection and we do not know where it now is. The other specimen, coupled with A 55, is in the Cabinet des Médailles in Paris (No. 127, Pl. XI). On this coin there is a fine naked male figure, wearing a conical pilos and supporting himself with a long staff. In front of the Athena head there is the inscription ΓΟΡΓΟΣ—no doubt the name of the hero represented. Owing to the head-gear this figure was taken for a Dioskourous, but R. Rochette recognized that it is Gorgos,¹⁵² son of Kypselos, the leader of the Corinthian colonists. Writers designate this hero in different ways: Torgos, Gordios,¹⁵³ Gorgias or Gorgos. This last, being on the coin, may be considered the correct one.

There is a very striking analogy between Tarentum and Ambracia. In Tarentum the leader of the Lacedaemonian colonists was Phalanthos, the historical oekist of the town.¹⁵⁴ But the mythic, eponymous, native oekist was

Taras, the son of Satyra and Poseidon.¹⁵⁵ In Ambracia the same condition holds. Gorgos, like Phalanthos, is the historical founder of the town, while Ambrax, son of Thesprotos, is the eponymous, native oekist. On the Ambracian colt we find Gorgos leaning on a long plain staff¹⁵⁷ (*σκῆπτρον*), the royal staff, symbolizing his authority over the colony he has founded. On several Tarentine nomoi (Vlasto No. 14) we find Phalanthos with the same symbol of authority.¹⁵⁸

Dies P 78 and 78a on coins 116, 123 and 126 have another interesting Ambracian type, a youthful horned male figure, naked, seated on a bull's head. On die P 78a in front of Athena's head there is the inscription ΑΡΑΘΘΟΣ. On die P 78 the inscription is over the seated figure's head; and on specimen 116a in Berlin we can distinctly read ΑΡΑΤ. . . .

The two dies, P 78 and P 78a, although they have different inscriptions and are differently placed, are really the same. P 78 is the first state of the die and P 78a is the state after a modification has been made to it. This is proved by coins 126 a (Pl. XI) and 126g (Cf. Bement, 966). On the first, there is a little flaw under the chin of Athena; on the second, the die-break is larger and crosses the inscription, while on no specimen of 116 can we see a flaw. Furthermore, on all well preserved specimens with reverses from P 78a, one can distinctly see faint traces of the inscription above

the figure; and on specimen 126a, in the writer's collection, one can notice the A of the beginning of the inscription, examining the coin under a tangent light. We may therefore conclude that the inscription on die P 78 being found unsatisfactory, probably because of the mistake in spelling (T instead of Θ), was erased, and the correct one, in front of the Athena head, substituted.

Evidently the horned youth represents a river-god; and since the name inscribed is that of the river flowing through Ambracia, it is obvious that this river-god represents the Arachthos deified.

Imhoof-Blumer¹⁵⁹ and Head¹⁶⁰ explain this figure in the same way, but Babelon¹⁶¹ says: "Sur ce statère le nom *Ἀραθθός* est un nom de magistrat et non point celui du dieu-fleuve Aratthos qui est en symbole derrière la tête de Pallas. L'Aratthos est le fleuve qui arrosait Ambracie; le magistrat appelé aussi Aratthos a pris naturellement pour symbole la figure du dieu-fleuve dont il portait le nom."

Babelon in this case, preoccupied only in finding a plausible confirmation of the "Magistrates'-signet theory," tried to find a roundabout explanation for the symbol, rather than to see in an objective way, the simple evidence of the name of the river inscribed over the head of the river-god.

Coin 128 (Pl. XI), of which we know only the specimen in Mr. Newell's collection, shows a winged male figure riding a dolphin. Head¹⁶² and

Riggauer,¹⁶³ describing a later revival, of the same type (Pl. XIV, 150) are of the opinion that the figure represents an Eros, which is only natural as the figure has wings and rides a dolphin. Similar Erotes are often met at later dates. (Cf. Berlin cat., III, Taf, XIV, 209).

The three above mentioned dies, P 78a, P 83 and P 85, have striking analogies of style and composition—on all three the heads of Athena, and the general appearance is exactly the same; and on all three the civic initial is on the bowl of the helmet.

The symbols, of the same nature, are real Ambracian types. On the first two, P 78a and P 83, they are treated in the same way and placed similarly. Both dies have names opposite the symbols.

The two figures on dies P 78a and P 85 are in an attitude that is peculiar—both are clasping hands round the left knee. There can be little doubt that the three reverses are the work of the same artist.

We have seen how similar the reverses P 78 a, P 83 and P 85 are—this last has the winged dolphin-rider in place of Gorgos and Arachthos, which are on the other two. If this winged figure represents an Eros it would be out of place between the oekist and the river-god of Ambracia. We may therefore infer that he represents a local hero. It would not be surprising if on a more

complete specimen of 128, we were to find an inscription in front of Athena's face, as with ΓΟΡΓΟΣ on die P 83 and ΑΡΑΘΘΟΣ on die P 78a, which would explain the meaning of the winged dolphin-rider and give us his name.

As we have already said,¹⁶⁴ die P 84 (Pl. XI) really belongs to the previous group. Athena's head is exactly the same as on die P 71. The youthful naked male figure, standing with his right hand raised to his head, is very similar to the girl playing at kottabos. Imhoof-Blumer had previously observed this likeness and suggested that the two dies were made by the same die-cutter, which is highly probable. He supposes that this die is a pendant of die P 71 and that the two complete each other. He says that this figure may represent a young Pan looking at the playing nymph.¹⁴¹ Head considers that it represents an athlete.¹⁶²

All the known specimens of this coin were more or less incomplete, the head of the figure always partially off-flan. This accounts for Imhoof-Blumer's and Head's suggestions. The only specimen that shows the complete figure is 125 f, in Paris (de Rothschild coll.), and this was not known to them. On 125 f, one can see that the handsome youth with long wavy curls wears a Corinthian helmet without crest or neck-guard. His r. hand is raised above the vizor in the attitude of taking off or putting on his helmet. This

figure may represent the copy of a statue of a local hero.

A naked figure with a helmet might represent Ares, but against this attribution is the fact that the god is never associated with Athena, who was known to be his enemy and the only one that could stand against him.^{163a} Besides Ares in this epoch is generally represented either wearing a chlamys, or naked, with a crested helmet and a spear in his hand.

Babelon describing coin 125d in the British Museum says that the obverse has AM under the Pegasos while in reality there is no letter at all, the civic initial being on the hind-quarters, on both dies A 54 and A 55. This error is understandable because in the catalogue of the British Museum there is no indication at all on the obverses of 5 and 6; and as there is AM under the Pegasos of 4, he thought all three had AM.

The reverse from die P 82 on coins 120 and 129 shows a flying Eros (?) binding an olive-wreath round Athena's helmet. Babelon places this coin by mistake, under Corinth and supposes the wreath is of laurel and is meant to commemorate the victory of Chaeronea.¹⁶⁷ But afterwards, in the posthumous part of his *Traité*, he describes the London specimen and repeats Head's explanation about the olive-wreath.¹⁶⁸

The reverse from die P 81 on coins 119, 131 and 133 has a symbol representing a Gorgon's head

placed sideways. The tongue instead of being downwards is towards Athena's neck.

Although this position is puzzling, the choice of the symbol is quite natural. Probably it is an allusion to the epithet of γοργοφόνος often given to Athena ¹⁶⁹ and is employed as a protection against evil influences, the Gorgon's head being known as one of the most powerful ἀποτρόπαια.¹⁷⁰

This die P 81 is the only Ambracian die with the civic initial A on the neck guard, the small A we find on coins 90 and 91 in the same place being a signature.

Die P 79 shows a bearded hero wearing a conical pilos and armed with sword and shield. Only on the specimen 117g (Pl. X) can this symbol be seen completely. On all others, the shield is partially off-flan, and looks like a bow.

PERIOD V, FROM 360 TO 338 B.C.

As we have already stated, the date for the beginning of the present period is only conjectural. The reverses have still the same kind of Ambracian types for symbols but a new type of Pegasos marks the commencement of the period. The end corresponds to the closing of the Ambracian mint in 338 B.C., after the battle of Chaeronea, when Philip of Macedon placed a garrison in the town.¹⁷

Under Pyrrhus, and afterwards, Ambracia struck coins only sporadically—chiefly bronzes.

Group A

The first Pegasos of this group is a new type, and entirely different from all the others of the series. It looks like a "revival" of the archaic Pegasos with curled wing, but instead of flying, he is walking. There is an exergual line. A similar Pegasos is found on a corresponding issue of Corinthian staters, of which we illustrate six specimens on Pl. XIX.

These staters were considered as belonging to the fifth century,¹⁷¹ which is certainly a mistake. The style of the reverses is of much later date, and it is more likely that they, as well as the Ambracian coins of this group, belong to the middle of the fourth century.

The archaism of this walking Pegasos is undoubtedly intentional, and is evidently copied from a well-known Corinthian work of art. The style of the Ambracian reverses coupled with die A 57 (Pl. XII) and the following Pegasos with pointed wing that we find on die A 58 coupled with some of the same reverses, proves sufficiently that this archaistic Pegasos belongs to this group. These two Pegasoi although different in design, show a head in the very same pose. On both it is slightly turned to l. and is not quite in profile.

The Pegasos on die A 58 (Pl. XIII) shows a remarkable peculiarity found in this and the following group only. The wing is composed of three rows of feathers, one of long and two of small

feathers. This very characteristic feature permits us to establish the sequence of the following group. Die A 57 after the first coin, 135 (Pl. XII), shows a flaw on the exergual line which is very small on coins 136 and much larger on coins 137 and 138 (Pl. XII). This flaw gives us the possibility of establishing the exact chronological sequence of dies P 86, P 87, P 88 and P 89. Die P 86, the first of the present group is in fact very similar to the previous reverses, with the same kind of Ambracian type; and the obverse coupled with it is fresh and shows that it comes from a new die (see coins 135b and 135i, Pl. XII).

Dies P 86 and P 87 are very similar—only the symbols change, but P 88 and P 89 are of completely different style—they look older, and the symbols too are of a simple nature, as we find on earlier coins. Judging only by the appearance, they should have been placed in an earlier period.

Coin 135 is a very interesting one, the symbol on the reverse is a real "*tableau de genre*" and one of the Ambracian type that we have seen in the previous group. Head,¹⁷² having only the specimen of the British Museum where half the symbol is off-flan, could not see what it really was and gives therefore the following very ingenious explanation: "Naked male figure, perhaps Ambrax the traditional founder, seated on rocks, while on the other side of the principal type a

swan swims to the left, this type symbolizing perhaps the city of Ambracia, the acropolis of which occupied a rocky height at the foot of which the river Arachthus, indicated by the swan, flowed through a fertile plain towards the Ambracian gulf."¹⁶⁰

On the splendid specimen of the same coin from the Imhoof-Blumer collection, we can distinctly see that what was taken for a swan is really the very same symbol we have already seen on the coins of the second period beneath the Pegasos (Pl. I, 12, 13 and Pl. II, 14 to 20). It represents a serpent coiled round a land-tortoise and striking at it.¹⁷³ Head's suggestion that the naked figure represents Ambrax is very probable and the staff that the figure holds in his left hand, a symbol of authority, seems to confirm that this is the mythical oekist of Ambracia.

We may reconstruct Head's explanation taking into consideration our own exegesis of the symbol wrongly described as a swan. Ambrax, the eponymous oekist of the town, seated, with the staff as symbol of his authority in his hand, is witnessing the destruction of the "turtle" by Erichthonios.

The serpent-turtle symbol first appeared on coins issued just after the stoppage of the Aeginetan "turtles." At the time, as we stated, it was probably an allusion to the disappearance of a strong competitor of the "colts" and was a sort of

prevision of the consequences that this would have on the diffusion of the "colts." It may be surprising to find the same symbol on coins of an epoch in which Aegina was again striking coins, but before 456 B.C. the "turtles" were almost a Peloponnesian currency and a dangerous competitor of the Corinthian staters, while after the fall of Athens, the coins of Aegina were only a local currency, no longer interfering with the Corinthian influence.

Coin 136, immediately following the above, has a symbol always described as "Infant Heracles strangling serpents," and it is really surprising that nobody should have noticed there were no serpents to be found in the boy's hands! The mistaking of the serpent-turtle symbol for a swan is quite comprehensible as the symbol is often partly off-flan. The tortoise looks like the back of the swan and the serpent like its neck, but the symbol on coin 136 is always complete, and nothing can be mistaken for serpents, although Head, Babelon, Grose and others, seem to have detected them.

This plump little boy is certainly not the infant Heracles. He is in a squatting attitude, the right knee slightly higher than the left, as if he were raising himself. With his left hand he supports himself on the ground—his right is raised as if pointing at something.

On an Apulian vase in the R. Museum of Bo-

logna, there is a similar plump boy, with a thyrsos in his right hand; he is in the same squatting attitude.¹⁷⁵ Above him is inscribed *Διονύσος*,¹⁷⁴ and to the left there is the head of Persephone-Kore. Gerhard¹⁷⁶ illustrated this vase and identified the child as Iacchos, the mystic offspring of Kore.

Evans,¹⁷⁷ speaking of a small Tarentine gold coin with a similar boy, but with a distaff in his right hand and a spool of wool in his left, describes the same vase and says that the child on the coin may be regarded as the infantile representation of Taras, and the comparison with the boy on the vase marks the influence of a prevalent Chthonic cult on that of the eponymic founder.

Iacchos was often represented as a handsome boy, *ὠπαῖος Θεός*,¹⁷⁸ and his place near Athena's head could perhaps be explained by the version that he was saved by Dionysos and given to Athena who nursed him.¹⁷⁹

As Gerhard's identification of the boy on the above mentioned vase is generally accepted, we may be justified in thinking that the symbol on the Ambracian stater represents Iacchos; and, if so, it is probably to be connected with the annual Eleusinian festivals.

The symbol we find on coins 137, 138, 142 and 143, is an androcephalous bull, full-face and in profile. The head in profile is similar to the

symbol found on the colts of Stratos,¹⁸⁰ which evidently represent the river-god Acheloüs. Oberhummer's¹⁸¹ opinion that this head on the Ambracian staters may represent the river-god Aracthos is to be discarded; we have already seen that Aracthos was represented as a youth, while this is the bearded face of an elderly man and therefore certainly an Acheloüs head. The cult of this river-god was not localized in the country through which the greatest of the Greek rivers passed, but was general over all Greece.¹⁸¹

But Acheloüs was not only the river-god, he was also the personification of the liquid element and was therefore an important part of the cult of Dodona,¹⁸² where Zeus had the surname of *Náios* and the oracles delivered there began generally with: *'Αχελῶψ θύειν*.¹⁸¹ We may therefore conclude that these symbols on the Ambracian colts not only represent Acheloüs' head, but are closely related to the famous temple of Dodona.

The symbol we find on 144 is a flying dove (Pl. XIII); next to it, there is NI. A similar bird is found on two other coins of the series, 148 and 181 (Pl. XIII and Pl. XVI), this last one with the inscription ΝΙΚΟΣΘΗ. . . . This dove is probably one of the *Peleiai* (*Πέλειαι*), the sacred birds of Dodona, that nested in the holy oak. From the flight of these doves, and the places where they perched, the priestess, *Peleias*, interpreted the oracle of Zeus.¹⁸³ This is therefore

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probably another Dodonian symbol employed as an ἀποτρόπαιον.¹⁸⁴

Coins 139 and 140 (Pl. XIII), also have a very interesting symbol—a beautiful little figure of Zeus, striding to right and hurling a thunderbolt. This small Zeus examined under a magnifying glass, shows the most perfect features and anatomy. The well-proportioned body and great accuracy in the smallest details make this a marvellous figure. Few Greek coins can show so nearly perfect workmanship in such a reduced size.

This Zeus is certainly not the creation of the artist who made Athena's head, which, although good, shows certain weaknesses. The helmet is too small for the head and there is a general flatness to the whole. It is probable that he carefully copied the Zeus from a well-known and celebrated work of art. As the previous symbols refer to Dodona, it would not be impossible that this is the statue of the famous Dodonian Zeus.

It is regrettable that the best known specimen, illustrated on Pl. XIII, although very good, is not in mint state. If it were, we might perhaps discover round the Zeus' head the wreath of oak-leaves.

An argument in favour of our hypothesis is the little bronze found in Dodona and now in the Berlin Museum.¹⁸⁵ This, although of very rough style shows a Zeus in exactly the same attitude.

He is striding to right and hurling a thunderbolt with his right hand, while the left is outstretched. Arms and legs are in the same pose. It is possible that this bronze is a rough copy of the same statue. Considering that Ambracia was on the easiest route to the famous sanctuary of Dodona, while from the coast opposite Corcyra the way was very steep and difficult, and several parallel chains of mountains had to be climbed before reaching the town,¹⁸⁶ it is natural that a continuous flow of pilgrims should have passed through Ambracia so that she was constantly in contact with Dodona. This would explain the reason for frequently choosing Dodonian symbols for her coins.

The two reverses, P 90 and P 97, have heads of Athena that look to be from the same die. The dolphin under the neck of the Goddess and the A over the Zeus are perhaps added afterwards.

Group B

The most interesting coin of this group is that with a naked figure kneeling under the Pegasos, examining its hoof. This obverse A 61 (Pl. XIII), is different from all other obverses of the whole series; it stands quite isolated. We are able to place it here owing to the kindness of Sir Charles Oman, who kindly sent me a cast of the remarkable and probably unique stater in his collection, with Pegasos flying over a running

Chimaera (145, Pl. XIII). This coin is the link between the previous group and the present. The Pegasos on the obverse A 60 is very similar to that on die A 58; the only difference is that one is slightly smaller than the other. Both Pegasoi have their heads and wings of the same shape. As we have already remarked, all wings previously have had only two rows of small feathers—these two have three rows.

The Pegasos following on die A 61, although standing instead of flying, is very similar. It has the same head, and the wing is also composed of three rows of small feathers. This would be enough to show that A 60 and A 61 follow each other, but both obverses are coupled with the same reverse, P 94, therefore it is evident that the two coins 145 and 146 belong to the same issue. Coin 145, now published for the first time, has on the obverse as we have noted, a running chimaera under the flying Pegasos. Nos. 146 and 147 have the same obverse, A 61, on which we see, under the standing Pegasos, a little figure holding the right hoof in his hand and examining it.

Nowhere else in this series, excepting the coins of the second period with the serpent-turtle symbol on the obverses (Pl. I and II), do we find symbols on the Pegasos die.

Dies A 60 and A 61 seem exceptions, but it is evident they are not symbols. Neither the chi-

maera nor the little figure are independent of the principal type—they are integral parts of the myth of Pegasos. On the first it is obvious that the Pegasos flying over the chimaera is an allusion to the fight of Bellerophon with that monster.

The second obverse is less easy to understand and has been interpreted variously. Mionnet thought it represented a satyr, owing to a small tail he imagined he saw.¹⁸⁷ Head described this little figure as a naked youth sitting on a low stool and examining the hoof of Pegasos; he supposed this coin to have been inspired by a contemporary didrachm of Tarentum¹⁸⁸ (Evans type C—Period IV) which has exactly the same figure under the horse. Evans described it as "a naked boy picking a pebble from the horse's hoof."¹⁸⁹ Babelon, too, states that the Ambracian colt has been copied from the Tarentine coin, and adds that these kinds of reproductions of types are due to the fancy of the die-cutters or mint-magistrates who "*s'en sont fait un jeu et un amusement.*"¹⁹⁰

The numismatists who have described this coin have had only one or two specimens at their disposal, and as the little figure is very small, and often badly struck or blurred, their descriptions are not always exact.

We have carefully examined fourteen casts from the same die, and have ascertained the following points:

1. The figure does not represent a boy, but a strong muscular man; and the face, very clear on some specimens, is not that of a boy.

2. He has no tail. On some specimens (e.g., 146b) a small tail-like flaw can be seen, but on others (like 147a) this is much larger and can no longer be taken for a tail. On others, again (146d), the flaw does not exist.

3. He is not sitting on a stool, but sits on his right heel; the left foot can be seen beneath the right knee.

4. He holds the hoof with his left hand, while his right is above it. The attitude is of attentive examination.

From these observations we may conclude that the figure is not a satyr or a young boy as on the Tarentine nomos.

Babelon's hypothesis of a die-cutter or magistrate amusing himself by imitating another coin that represents "*a boy picking a pebble out of a horse's hoof*" is highly improbable—the Greek mentality was far too subtle to indulge in such "pastime."

Eckhel, in his *Numi Veteres Anecdoti*, suggested an explanation that has been forgotten. With the support of some verses of Dionysos Periegetes and comments of the Scholiast Eustathios, where it is recorded that Pegasos before reaching Tarsos had lost a hoof,¹⁹¹ he says that the little figure represents Bellerophon examining the injured foot of

Pegasos.¹⁹² This is a very probable explanation and our observations exactly correspond with it. Furthermore, it receives confirmation from the obvious meaning of obverse A 60 on coin 145 of the same issue.

As stated above, both coins have therefore obverses representing an incident of the myth of Pegasos.

Consequently we may conclude that this Ambracian colt has mythological significance, and that the Tarentine nomos has not. It is therefore but reasonable that this last one should have been inspired by the first and not vice-versa, as has been supposed. The colts circulated freely in South Italy, and may have tempted a Tarentine die-cutter to copy them. The nomoi of Tarentum of lighter weight were certainly not frequently to be met in Ambracia. Consequently, the Ambracian coin is earlier than the Tarentine. The better style of the latter is not surprising if we consider that the mint of Tarentum possessed such famous artists, as ΦΙ and ΚΑΛ at the time.¹⁹³

On coins 148 and 149 (Pl. XIII–XII) we see again a sacred *πέλεια* of Dodona, such as we have already found on die P 93.

On coin 151 there is a serpent, another effective *ἀποτρόπαιον*.¹⁹⁴

Die P 97 on the rare coin 150 is a revival of die P 85 (Pl. XI). The head is larger—the A is no longer on the bowl of the helmet, but under the

neck truncation, The dolphin-rider, larger too, is in the same attitude—clasping his hands round the left knee.

This is the only case of a revival of an old type in all the Ambracian series, and seems to confirm our opinion that the dolphin-rider is not intended for the usual Eros. As we already stated, it is probable that it represents a local hero, whose name we may learn some day.

Head suggested that this type was also inspired by the Tarentine nomoi.¹⁴⁷ This was natural enough as he believed that the type found on coin 146 was borrowed from the same mint. But if coin 150 were the only coin having such faint resemblance to the Tarentine coinage, we are sure he would never have suggested that the winged-hero was borrowed from Tarentum.

Coins 152, 153, 155, 156 and 159 are the simplest colts of Ambracia. After the interesting and elaborate dies we have been considering, they make a strange contrast.

Like dies P 94 and P 95, die P 99 has only the civic initial, but in the first two it was only natural that they should be simple, as they were coupled with a very pictorial obverse, while in this very simple coin there are just the standard Corinthian types.

Die P 100 (153, 155 and 156, Pl. XIV) is still simpler—merely Athena's head. This is certainly the least interesting of the series.

Die P 101 (154 and 157) and P 102 (158), on the contrary, are very remarkable. The heads are exactly the same—as though they were from the same die—but the symbols are different. Naturally it would be possible that the shrimp might have been cut over the dolphin, but it does not seem in exactly the same place.

Group C

From this moment to the closing of the mint, the wing of Pegasos shows a marked tendency to curl upwards. This peculiarity of the wing is common to all late staters of Corinthian types. In this group this peculiarity is just perceptible, but in the following it is more accentuated.

The Pegasoi on the five obverses composing this group are all very similar. The first four reverses have Olympian symbols—they are all evidently derived from the staters of Olympia.

Die P 103 has a thunderbolt of a very uncommon shape, the upper part composed of two wings and a central dart. These wings are not symmetrically disposed; the left one overlaps the dart to right. A similar thunderbolt is found on certain coins of Olympia¹⁹⁵ (Seltman, 166, die $\delta\vartheta$, Pl. V). We know only one specimen of coin, 160, Pl. XIV, with this symbol. It is, we believe, hitherto unpublished.

Die P 104 has an eagle with spread wings standing on a ram's head; this too is very similar to a

coin of Olympia (Seltman, 320, die iθ, XI). The resemblance to the Olympian coins is so strong that E. Curtius¹⁹⁶ supposed Elis had also struck coins of Corinthian types and that our 157 might be a colt of this town.

Die P 105 shows an eagle with spread wings holding a serpent in its beak, similar to the eagle of another Olympian stater (Seltman 123, die BH, Pl. IV). P 106 has another symbol of the same kind, an eagle standing upright as on Seltman 312 (die θω, XI).

All four reverses are found coupled with the same obverse. They are all very rare, and but few specimens are known of each. They must have been in use for a short time only.

These symbols are too numerous and too similar to the coins mentioned to be considered as a casual coincidence. They are certainly taken from the Olympian types and must have been chosen to commemorate an Ambracian event in connection with Olympia. What this event could have been is rather difficult to conjecture; certainly it was not political. Perhaps it was the admission of Ambracia to the Olympian games, or rather some important agonistic victory obtained there.

The other reverses of this group which share obverses with the previous, have another characteristic that is distinctive—the helmet of Athena has a crest. To our knowledge, this crested helmet is found on these colts and on some of Anacto-

rium and Leucas. The combination of dies of coins with the crested helmet and those with the Olympian symbols proves that they follow each other. The symbol found with the crested helmet is always a spear-head, a characteristic Aeakid badge, which became at a later period a recognized badge of the autonomous Epirote mints.¹⁹⁷

Group D

The coins that form this group all have the Pegasos with the wing curled upwards. Their style is rather poor and clearly shows the beginning of decadence. The two obverses, A 76 and A 77 (Pl. XV—XVI), must have been used for a long time. The first we find coupled with four reverses, the second with eight.

On the obverse of coin 173 there are such large flaws that the Pegasos is completely disfigured. It is astonishing that such a damaged die should still have been used. No coins without these flaws are known.

The following die A 77 has also large flaws but we can follow the progression of the fracture of the die from the beginning. No. 174 is the first coin we find with this obverse and the flaw is very small near the Pegasos' right hind-leg.

Reverse P 114 is almost the same as P 115; but very small differences enable us to see that they are not the same die. This coin is the link between the two obverses and proves that A 77

replaces A 76 when this was completely broken. The small flaw we see on the above mentioned coin progressively augments in size, until on coin 181 the die shows a large lump that covers the hind-legs of the Pegasos. The chronological sequence of the seven reverses can therefore easily be established.

The continued use of the two obverses so damaged is almost unique in the Greek series; either very bad metal was employed in making the dies,^{197a} or they had great difficulties in making new ones. Anyhow, although this may sound incredible, it seems that only one pair of dies was in use at the time and that one die replaced the other when this could no longer be used.

We think it necessary to remark for the sake of accuracy that the fractures show practically the same state of progression on all the specimens of the same couplings. We have not chosen extremes to illustrate on the plates, but just the best available specimens. Thus, for instance, all three specimens of 181 show the obverse in the same state of fracture.

A very strange circumstance is that of all the eleven reverses found coupled with these two obverses, but one (P 112) shows a small fracture. It has always been thought the reverses wore more quickly than the obverses, and the greater number of them seems to prove it. But if this be so, how is it that the surviving coins do not show traces of

wear? The only explanation would be that they were changed frequently and as soon as a fracture appeared; but, if so, why were not the obverse dies changed too, when they were in such a state—for example the obverses on coins 170, 173, 180 and 181?

Dies P 111 and P 112 have a thymiaterion for symbol. Here we can see that the burner is very small and shaped like an acorn. This shows that the ending of the swinging thymiaterion, of which we have spoken on p. 102, is not too small for a burner. Dies P 113 and P 114 have Athena's head from the same die, but P 114 has a bunch of grapes added afterwards to the die. It may be that this bunch of grapes has been added to hide a fracture of the die.

On die P 117 there is a branch of thistle for symbol. Babelon described it as a poppy—probably he did not notice the flower or that the leaves had thorns.

Dies P 118, 119, 120, 121 and 126 all have the same symbol—the obelisk of Ambracia, which we have already found on coin 43 (Pl. IV) of the II Period.¹²⁴

Coin 181 is very interesting. We know only three specimens of it. On the London specimen there are five letters, NIKOΣ; on the specimen in the writer's collection the inscription is more complete, NIKOΣΘE . . ., but some letters are obviously missing. Probably the complete inscrip-

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tion is Nikosthenes. If this is the name of a magistrate, it would be the only Ambracian colt with a magistrate's name. The symbol of this very late coin is a dove, such as we found on coin 144 (Pl. XIII) on which, near the dove, we find NI.

As we know no other Ambracian colt with a magistrate's name, we are more inclined to believe that ΝΙΚΟΣΘΕ . . . does not represent the name of a magistrate but a name of a local hero like ΓΟΡΓΟΣ.

Die P 124 is again inscribed AMIIPA, which is a very remarkable feature for such a late coin.

Head places 183 at a very early period, probably owing to the ethnic, but there is no doubt that it is one of the last colts of Ambracia. The Pegasos' wing curled upwards is a very sure feature of a late issue, and it is never found before the fifth period. Besides, the style of Athena's head is very bad too and certainly has nothing in common with the archaistic style of our 100, 101, 102 (Pl. IX) and 106 (Pl. X), among which the coin was placed in the Catalogue of the British Museum.¹⁹⁸

This coin, like the two following, has the obverse from the same die A 78, with AM beneath the Pegasos; 183 and 184, illustrated on Pl. XVI, have this M off-flan, but on 182 it is visible. The M near the A was probably necessary at the time to distinguish the colts of Ambracia from those of Argos, this mint having started to employ the

civic initial A as Ambracia had always done before.

Nos. 184 and 182 are both known by one specimen only—the first in the writer's collection and the second in Paris, where it is among the colts of uncertain mints. This coin has a very peculiar symbol; the very careful and realistic reproduction permits us to establish that it does not represent the common locust which we often find used as a symbol on Greek coins, but the female of *Locusta viridissima* or *cantans*, bearing eggs, which accounts for the abnormal size of the abdomen.

Uncertain Mints

The coins under this heading are generally considered as belonging to Ambracia.

They are of three distinct groups. To the first belong 186, 187, and 188; they are of a quite peculiarly coarse style—the Pegasos on the only obverse found coupled with the three reverses is of very rough workmanship. We meet with nothing similar in all the Ambracian series, but on some colts of South Italy (Locri) we do find a style approaching this. The heads of Athena are very flat and they seem to be the work of an unskilled die-cutter.

This group with the large A on the reverses can hardly be accredited to a mint other than Ambracia, but because of the style and the fact that

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these coins stand quite isolated, we place them under the "Uncertain Mints." We are inclined to believe that they may be imitations of Ambracian Colts, made in Southern Italy, where they are generally found.

The second group is composed of a single reverse die, with two obverses. If this coin (190, Pl. XVII) is of Ambracia, it would stand quite isolated in the established sequence. The style of the reverse is good, but the obverses with which we find it coupled are of very bad style; the first is similar to A 80, but the second has a Pegasos of the peculiar type that is found on very late colts only. The olive-wreath placed on the helmet below the bowl, and the long flowing loose locks visible on both sides of the neck as though a strong wind were blowing from behind the Athena's head, give to the coin a very peculiar appearance. We are tempted to believe it belongs to another mint, perhaps Apollonia or Anactorium, the lyre and the wreathed helmet being often met on coins of this last mint.

To the third group belong the coins 191 and 192 (Pl. XVII). The style of reverses P 131 and P 132 can be considered as very good for such late coins, but the modelling is very flat and too sweet and conventional. One can clearly see that the preoccupation of the die-cutter was with making something pretty. A strikingly similar style is found on the Pyrrhic coins, made in Sicily.

These coins are perhaps the only colts struck in Ambracia after the closing of the mint. We conjecture that they were struck at the time when Pyrrhus made Ambracia his capital.¹⁹⁹ Their rarity seems to confirm that they were soon replaced by the currency of the Epirote ruler.

Coins 193 and 194, illustrated on Pl. XVII, both in Berlin, are barbarous imitations. On the first, the shape of the letter behind the Athena's head is noteworthy. The die-cutter did not understand the peculiar shape of the Ambracian A¹³²; he thought it was an ornamental device and copied it as a triangle Δ. This seems to be the coin illustrated by Cousinéry.²⁰⁰

The second has a reverse that is rather closely copied from die P 113 (Pl. XV), but the obverse shows a Pegasos that we never find on colts of a Greek mint. Only on Syracusan colts do we sometimes find the Pegasos with both wings visible.

A third coin illustrated on the same plate (195) is an ancient imitation too; the reverse is copied from die P 65 (Pl. IX) and the reverse is copied from a die of Leucas (cf. B. M. C., Pl. XXXIV, 8). Such a Pegasos with curled wing is not known as yet in the Ambracian series. This coin is very light; it weighs grm. 6.70 only, but it is certainly genuine. Unfortunately enough the coin that was kindly sent to me by Count Chandon de Briailles has been lost in the mail.

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Coin *a*, illustrated on Pl. XVII, is in Naples in the Santangelo Collection; there is no doubt that the inscription at full length is a modern addition.

Cousinéry illustrates on Pl. IV, 9, a similar coin inscribed in full on the obverse, over the Pegasos; both coins have an A on the Pegasos' hind-quarters; they are of exactly the same technique. The A is very heavy and was probably made by cutting away the horse's thigh. These coins are certainly forgeries, and as they look very similar it is probable that they come both from the same counterfeiter.

Several catalogues illustrate coins of Gela, Agrigentum, Messana and even colts, with pellets and extraordinary symbols added to common coins by clever soldering. There was an engraver in Catania, a certain Geremia, who made a specialty of this kind of falsification, and although we do not know of any such forgeries for Ambracia, we think it of interest to describe some colts that passed through public sales with the addition of spurious symbols.^{202a}

Leucas. Large head, with Phrygian cap added on the reverse. Egger Sale, 1906, 366.

Anactorium. Large head, with conical pilos added on the obverse. Same sale, 367.²⁰¹

Corinth. Three pellets added on the reverse. Egger Sale, 1909, 352.

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Locri. Three pellets added on the obverse.

Same sale, 369. Hirsch XXX, 517.

Locri. Pecten-shell added on the reverse. Egger

Sale, 1909, 370.

Syracuse E. T. Newell Coll.

All these coins were altered by the same man, now dead. As they are published, they might be dangerous for students. The coin with pellets, added might lead to fallacious metrological conclusions.^{201a}

REMARKS ON DIES

The following table gives the number of all recorded specimens for each die. The dies are divided by periods and groups so that it is possible to see the peculiarities of each group.

A similar table has been established by L. O. Th. Tudeer for the tetradrachms of Syracuse²⁰² and by W. Schwabacher for the tetradrachms of Selinus.²⁰⁴ We think it of some interest to compare the three tables.

Syracuse 709 specimens, 43 A-dies, 80 P-dies.

Selinus 262 specimens, 14 A-dies, 35 P-dies.

Ambracia 619 specimens, 79 A-dies, 126 P-dies.

The maximum number of specimens from the same die are:

For Syracuse 53 from A-dies, 38 from P-dies.

For Selinus 59 from A-dies, 19 from P-dies.

For Ambracia 44 from A-dies, 22 from P-dies.

The exceptionally high number of specimens from the same A-die in Selinus may perhaps be explained if we consider that probably the greatest number of the recorded coins come from one hoard. The die must have been in use for a long time, as several coins show a very large fracture.

In Ambracia, also, the maximum number of specimens from the same A-die is proportionately much larger than in Syracuse.

It seems that in the mint of Ambracia they did not mind using a broken die for the obverse, but they were very particular about changing the P-dies as soon as a small fracture appeared. We know only a few reverses with flaws, and these are very small, while some obverses are badly fractured. Perhaps in Ambracia the A-dies were fastened to the anvil, and therefore even if they were broken they could still be used, while the P-die, used as a punch, received the blow. If damaged, it could not have stood the hammering, and they were therefore obliged to change it as soon as it was damaged (cf. page 146).

The average of the number of A-dies in relation with P-dies is the following in the three series:

Syracuse 10 to 18,

Selinus 10 to 25,

Ambracia 10 to 15.

For this last series the average is misleading. Even if we do not consider the abnormal proportion of the two dies that we have already re-

marked for the first period (p. 85), the ratio between the two dies is variable even between two groups of the same period.

We have for instance in groups A and B of period II

10 to 12,

and in group C of the same period we have 3 A-dies for 9 P-dies, or proportionally

10 to 30 (!),

and in group B of period V

10 to 8,

while in group D of the same period 4 A-dies for 16 P-dies, or proportionally

10 to 40.

Such discrepancies are difficult to explain. A possible hypothesis would be that the coins of groups C/II and D/V may perhaps have come from one or two finds composed of coins of the same issue, being couplings of a large number of reverses (P-die) with the same obverse (A-die), while those of groups A-B/II and B/V have been found singly. Perhaps in the last-named groups many other reverses existed of which no specimens have survived. This is mere conjecture, and for the present cannot be substantiated as no record of a find of colts exists.

We may conclude that the original ratio between obverses and reverses was certainly much larger than the average of *10 to 15*.

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TABLE OF THE RECORDED SPECIMENS

	A-dies	Number	P-dies	Number
I PERIOD	1	8	1	5
Group A	2	3	2	3
6 A-dies, 21 spec.	3	1	3	5
4 P-dies, 21 spec.	4	4	4	8
	5	3		
	6	2		
Group B	7	2	5	9
3 A-dies, 18 spec.	8	8	6	9
2 P-dies, 18 spec.	9	8		
II PERIOD	10	4	7	5
Group A	11	4	8	2
4 A-dies, 17 spec.	12	3	9	1
5 P-dies, 17 spec.	13	6	10	6
			11	3
Group B	14	4	12	1
8 A-dies, 16 spec.	15	1	13	1
10 P-dies, 15 spec.	16	1	14	3
	17	3	15	1
	18	1	16	1
	19	1	17	1
	20	4	18	1
	21	1	19	1
			20	4
			21	1
Group C	22	4	22	1
3 A-dies, 19 spec.	23	10	23	3
9 P-dies, 19 spec.	24	5	24	1
			25	1
			26	1
			27	2
			28	4
			29	1
			30	5

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	A-dies	Number	P-dies	Number
III PERIOD	25	1	31	8
Group A	26	3	32	3
5 A-dies, 16 spec.	27	7	33	2
3 P-dies, 13 spec.	28	3		
	29	2		
Group B	30	5	34	5
2 A-dies, 21 spec.	31	16	35	4
4 P-dies, 21 spec.			36	6
			37	6
Group C	32	5	38	4
2 A-dies, 19 spec.	33	14	39	1
5 P-dies, 19 spec.			40	1
			41	7
			42	6
Group D	34	4	43	5
4 A-dies, 55 spec.	35	7	44	6
7 P-dies, 55 spec.	36	28	45	4
	37	16	46	8
			47	13
			48	10
			49	9
Group E	38	4	50	4
3 A-dies, 18 spec.	39	10	51	8
5 P-dies, 18 spec.	40	4	52	1
			53	3
			54	2
Group F			55	3
3 A-dies, 23 spec.	41	12	56	2
6 P-dies, 23 spec.	42	10	57	5
	43	1	58	1
			59	2
			60	10

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	A-dies	Number	P-dies	Number
IV PERIOD <i>Group A</i> 2 A-dies, 35 spec. 7 P-dies, 35 spec.	44	34	61	9
	45	1	62	1
			63	9
			64	5
			65	5
			66	5
			67	1
<i>Group B</i> 7 A-dies, 101 spec. 10 P-dies, 95 spec.	46	19	68	12
	47	12	69	10
	48	26	70	14
	49	1	71	15
	50	1	72	1
	51	21	73	22
	52	21	74	4
			75	1
			76	15
			77	1
<i>Group C</i> 4 A-dies, 59 spec. 8 P-dies, 56 spec.	53	18	78	3
	54	10	78	13
	55	28	79	10
	56	3	80	7
			81	4
			82	9
			83	2
			84	7
			85	1
V PERIOD <i>Group A</i> 3 A-dies, 64 spec. 8 P-dies, 64 spec.	57	44	86	15
	58	19	87	10
	59	1	88	18
			89	9
			90	4
			91	5
			92	2
			93	1

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	A-dies	Number	P-dies	Number
<i>Group B</i> 11 A-dies, 41 spec. 9 P-dies, 41 spec.	60	1	94	9
	61	15	95	7
	62	2	96	6
	63	9	97	3
	64	3	98	2
	65	4	99	4
	66	1	100	5
	67	1	101	2
	68	1	102	3
	69	3		
	70	1		
<i>Group C</i> 5 A-dies, 30 spec. 8 P-dies, 30 spec.	71	9	103	1
	72	5	104	3
	73	3	105	4
	74	10	106	2
	75	3	107	3
			108	4
			109	10
			110	3
<i>Group D</i> 4 A-dies, 46 spec. 16 P-dies, 46 spec.	76	12	111	6
	77	28	112	2
	78	5	113	1
	79	1	114	3
			115	5
			116	2
			117	2
			118	4
			119	3
			120	6

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	A-dies	Number	P-dies	Number
			121	3
			122	3
			123	1
			124	3
			125	1
			126	1
I Period	9	39	6	39
II Period	15	52	24	51
III Period	19	152	30	149
IV Period	13	195	25	186
V Period	23	181	41	181
TOTAL	79	619	126	606
Combinations with re- verses from other periods or groups.				13

THE WEIGHT STANDARD

One of the chief factors of the success of the Corinthian currency was certainly the standard adopted. Although it was really the Euboïc-Attic standard, the system of division by 3 and 6 permitted an exchange with the money of the Aeginetic-standard. Thus a Corinthian stater corresponded to an Attic didrachm and a Corinthian drachm or 1/3 stater to an Aeginetan hemidrachm or 1/4 stater. Head indicates the weight of the standard of the Corinthian stater as 8.74 grm. (135 grs.).²⁰⁶ Babelon brings this weight to grm. 8.72.²⁰⁷

These are higher than the weights we have obtained with the frequency-table, established by the Hill-Robinson method.²⁰⁸ Results obtained with this method are certainly truer than those obtained with the averaging system where exceptionally heavy coins or especially light ones may greatly influence the figures obtained.

A first frequency-table established with the coins of the British Museum gave us a frequency-summit of 8.55 grm. Adding 1 per cent, for loss of weight by circulation, we obtain a normal weight of grm. 8.63, which, given the good condition of the coins of the B. M., must be very near the Corinthian standard. From another table established with 135 coins in my own collection, we obtained a norm of grm. 8.58. The difference of grm. 0.05 is probably due to the better condition of the coins of the B. M.

A table established with the coins of the different towns of Akarnania, recorded by Imhoof-Blumer, and 110 specimens of my own collection, gave us the highest point of grm. 8.50; adding 1 per cent, we obtain a norm of grm. 8.58 for the staters of Akarnania.

Another table with all the Ambracian staters here recorded, 496 specimens, gives us the highest point grm. 8.45 plus 1 per cent, norm grm. 8.53.

In working out this table we observed that the weights seemed to augment towards the end of the series; this induced us to make three separate tables and we obtained the following results:

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I-II-III Per. . .	Summit 8.35 grm. plus 1 %, norm grm. 8.42.
IV Per.	Summit 8.45 grm. plus 1 %, norm grm. 8.53.
V Per.	Summit 8.50 grm. plus 1 %, norm grm. 8.58.

From these results we may draw the following conclusions:

1. That the Colonies of Corinth seem to have had a lower standard than their mother-city, and that this must have been very near to 8.58 grm.
2. That the standard of Ambracia was lower than that of the other colonies.
3. That not only the standard of the colts did not drop at about the fourth century, as Prof. P. Gardner says,²⁰⁹ but on the contrary, at least for Ambracia, it rose at that time and reached the level of the coins of Akarnania.

ERRONEOUS ATTRIBUTIONS

In many public and private collections there are often colts inscribed A and therefore placed under Ambracia which do not belong to this mint. We think it useful to illustrate these coins on Pl. XVII and XVIII, although many of them have already been attributed to other mints, by Imhoof-Blumer, but not being illustrated, they are often misplaced.

A great number of these coins are of very late style, and certainly posterior to the closing of the mint of Ambracia.

ALYZIA

Coin 1 (Pl. XVII) in Berlin, from the Prokesch-Osten collection, is certainly of this mint. A specimen in the writer's cabinet has the reverse from the same die and the inscription ΑΛΤ is clearly visible in front of the Athena's head, while on the Berlin specimen only Α and the lower part of the other two letters can be seen. This coin corresponds to Imhoof-Blumer No. 5.²¹⁰ Coin 2 (Pl. XVIII) in Athens belongs to the same mint; the obverse is from the same die as the coin of Alyzia in Paris, illustrated by Babelon (Tr., t. IV, pl. CCLXXII, 20). The symbol, a quiver and a bow, confirms this attribution.

ARGOS AMPHILOCHICUM

Coin 3 (Pl. XVIII) in Paris and 4 in Berlin are undoubtedly from this mint. The AM in front of the Athena's helmet is not the beginning of the Ambracian ethnic, but of ΑΜΦΙΛΟΧΩΝ. This can be seen on the coins of the same mint (Imhoof-Blumer 28 to 38)²¹¹ on which the ethnic is ΑΜΦΙΛΟ, ΑΜΦΙΛ, ΑΜΦΙ, ΑΜΦ and afterwards, ΑΜ only. The symbol is generally either a spear or a spear-head. A similar coin in the McClean collection is erroneously ascribed to Mesma.²¹²

Coin 5 in Munich, and others similar, under Ambracia in the Hague and in a private collection,

have AP and a shield for symbol; this coin corresponds to Imhoof-Blumer 16. Nos. 6, 7, 8 and 9 under Ambracia in several public and private collections are of Argos and can be found in Imhoof-Blumer too. Nos. 10 to 13 in Munich, Glasgow and London are of the same mint and were ascribed to Argos by Imhoof-Blumer owing to their fabric.²¹³ Although placed under Ambracia in the British Museum Catalogue, Head doubted they were really of this mint.²¹⁴

On all these coins of very flat fabric and of late style, the Athena's hair is distinctively treated. On all the Ambracian staters it flows down from beneath the helmet and neck-guard, while on these coins it goes back over the neck-guard in ungainly heavy curls of a very conventional shape. Prof. Oman, in his recent study on the "Late Coinage of Corinth," remarked the same peculiarity on the late Corinthian issues.²¹⁵ These conventional curls which look like hooks stuck on the neck-guard never occur on the Ambracian colts. They are, however, met sometimes on late coins of Anactorium and Leukas, but are generally present on the late colts of mints that continued to strike colts after the Macedonian invasion—such as Argos, Astakos, Coronta(?), Metropolis, Thyreion—and on the colts of the Akarnanian league.

NOTES

1. Dr. E. Oberhummer. Akarnanien, Ambrakia, Amphilochien, Leukas im Altertum. München, 1887, p. 4.
2. Scyl., 33. Dionys. Calliph., 28.
3. Oberhummer, op. cit., p. 26.
4. Polyb., XXI, 26 (XXII-9). Livy, XXXVIII, 3, 11. Oberhummer, p. 72.
5. Oberhummer, p. 64.
6. Dion. Hal., a R. 50.
7. Oberhummer, p. 79.
8. E. Babelon, Traité des Monnaies Grécques et Romaines, II P., tome IV, c. 132.
9. Raoul Rochette, Annali dell'Istituto di Roma, t.I, pp. 312-316.
10. Ernest Curtius, Griechische Geschichte, II B, p. 87. Babelon, op. cit., col. 124.
- 10^a. Herod., VI, 29. Curtius, Studien zur Gesch. von Corinth, Hermes 2. B., 2 H., p. 229.
11. Babelon, op. cit., c. 127.
12. Thucyd., II, 68. L. Heuzey, Le mont Olympe et l'Acarnanie, p. 298.
13. Thucyd., III, 112. L. Heuzey, op. cit., p. 305.
14. L. Heuzey, op. cit., 298.
15. Thucyd., III, 112.
16. Babelon, op. cit., c. 128.
17. Diod., XVII, 3. Head B. M. Cat., p. lvi, Babelon, op. cit., IV, c. 128.
18. Barclay V. Head, Catalogue of the Brit. Museum, Corinth, p. 111, n. 63 and 64. The weight corresponds to the half-victoriatus.
19. Pollux (IX, 76) says: *πῶλον, το νόμισμα τὸ κορίνθιον, ὅτι Πήγασον εἶχεν ἐντετυπώμενον*, and he quotes Euripides in the Skiron speaking of the hetaerae in Corinth: "Some you will win if you give one horse

(πῶλος), some by a pair; some come for four silver horses, but what they like is virgins from Athens when you bring many." (Prof. P. Gardner, Pollux' Account of ancient coins. Num. Chr., 3d Series, Vol. I, p. 294.)

19^a. O. Ravel, "Notes on some rare Pegasi of my collection," Num. Chr., V ser., 1926, 24, p. 305.

19^b. The Magistrates'-signets-theory has been fully discussed and proved by Lenormant for the series of tetradrachms of Athens only; it may be possible that even in other series like Metapontum, for instance, the meaning of the symbols is connected with the mint-magistrates, but it is a mistake to generalize. If this theory was not generally accepted and was a new one to be applied to the Ambracian series, one would certainly be in great difficulties to find arguments to prove it.

20. Head, op. cit., p. xxiv.

21. Prof. Charles Oman, The fifth-century Coins of Corinth, Num. Chr., 4th Series, Vol. IX, p. 18.

22. Babelon, op. cit., T. III, c. 414, 415.

23. Head, op. cit., p. 25 f.

24. Prof. George Macdonald, Coin Types, Their Origin and Development, p. 65 f. In the case of these colts, the principal type being in common with the mother-city and the other colonies, the symbol was a kind of secondary type and therefore it was this that represented the *παράσημον* of the town.

26. G. H. Hill, Ancient Methods of Coining, Num. Chr., 5th series, Vol. II, p. 1 f.

26^a. Against this conclusion there would be only one argument and this was kindly given to me by Mr. C. T. Seltman, to whom I explained the case.

He supposes that one die was in constant use for a couple of years and then put aside and only used occasionally, when other dies were not at hand. This

clever hypothesis is easily contradicted by the fact that only 1 and 5 are found with other dies. If die A was used during a certain period, only occasionally, we should find couplings with A as an exception, and couplings with another obverse should be the norm, which it is not.

29. The Club is quite exceptional for Ambracia and this is why the two coins 29 and 30 (Pl. III) were considered as being of Dyrrhachium.
30. *Revue Numismatique*, IV Ser., T. II, 3, Tr. 1907, p. 323.
31. Prof. P. Gardner, *A History of Ancient Coinage*, p. 370, 371.
- 31^a. The present series shows very strange anomalies; see here, p. 91 and p. 166.
32. Athena's head, the constant type of all the colts, has received different names. Fr. Lenormant (*Rev. Num.*, t. XI, p. 73) thought it might represent the armed Aphrodite of which Pausanias saw a statue in the Acrocorinth (Paus., II, 4, 6). E. Curtius supported this opinion. Imhoof-Blumer (*Die Münzen Akarnaniens*, p. 4) discusses it and says that an Aphrodite with a helmet has never existed and the only arms that the armed Aphrodite had, was a shield, which she used as a mirror, as can be seen on later bronze coins. He states that the head is undoubtedly the head of Athena.

Babelon (*Tr.*, t. I, c. 809–810) follows the same opinion and says that *Ἀφροδίτη ὠπλισμένη* does not mean Aphrodite with a helmet. He sees in the head, Athena *χαλινίτις*, who had a temple on the market square in Corinth. This goddess appeared to Bellerophon and gave him a golden bridle with which he mastered Pegasos, therefore her surname *χαλινίτις*, the goddess with the bridle. This explanation connects the type of the reverse with that of the obverse.

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33. The Pegasos is always found on the obverse of the coins of Corinth and her colonies. On the colts of South Italy and Sicily, it is sometimes on the reverse. This is comprehensible as for these countries the Pegasos had not the same importance as for Corinth, the issues being only a kind of secondary currency, made to satisfy the demands of trade.
34. G. Macdonald, *op. cit.*, p. 125, says: "Probably it was due to the widespread popularity of her 'colts' that the Pegasos maintained its position on the obverse, even after the helmeted head of Athena had joined it as a companion," and at p. 136: ". . . the (Athena's) head succeeds to a place that was vacant, only a single type having been used there previously."
- 34^a. In my "Notes" previously cited, I have drawn attention to this peculiarity.
35. See p. 108 (die P 29 and P 30, Pl. IV) and p. 140 (P 86 and P 88-P 89, Pl. XXII).
- 35^a. Up to date great importance has been given to the symbols, for the classification of the colts. The cases described on pp. 9 and 10 prove how dangerous this is.
36. When in 1878 Imhoof-Blumer wrote his exhaustive study "Die Münzen Akarnaniens" (*Num. Zeitsch.*, X) he saw how difficult it is to classify the colts, chronologically, according to their appearance, and how necessary it would be, for this kind of attempt, to collect as many originals and casts as possible in order to examine and compare all the dies (p. 69).
This, in an epoch when nobody thought of studying the coins through their die-combinations, is quite remarkable and Imhoof-Blumer should therefore be considered as the precursor of the system.
37. Head, *op. cit.*, p. liv.

38. Babelon, op. cit., t. I, c. 913.
39. G. Macdonald, Fixed and loose dies. *Corolla Numismatica*, p. 183 f.
40. See cut at p. 23.
41. S. W. Grose—Fitzwilliam Museum, MacClean Bequest, p. 261, n. 5097, pl. 185, 2. This coin is not of Ambracia but of Leucas.
42. Imhoof-Blumer, *Monnaies Grècques*, p. 187, n. 21, and "Choix," pl. I, 29.
43. Imhoof-Blumer, *Monnaies Grècques*, p. 137, n. 21 a.
44. Head, op. cit., p. 109. The symbol under the Pegasos is described as a "pellet."
45. Babelon, op. cit., t. IV, c. 142, describes the same coin as having as symbol a "coquillage" (shellfish).
46. See cut at p. 23.
47. Head and Babelon give this coin to Dyrrhachium because the club symbol is generally considered as the *παράσημον* of this town.
48. Hirsch attributes this coin to Dyrrhachium, following the Cat. of the B. M.
49. Grose, op. cit., p. 261. This Nike is taken for the Eros binding the olive-wreath round the helmet (pl. X, 118 a).
50. In the Egger catalogue this coin is placed under Dyrrhachium and the Nike is described as crowning Athena. That the Nike holds a fillet and not a wreath, is clearly visible on 36 a, pl. III.
51. On this coin there is a kind of crescent to l.; it is probably only accidental.
52. See cut at p. 23.
53. Babelon, op. cit., t. IV, attributes this coin to Alyzia following Imhoof-Blumer, and again to Ambracia following Head.
54. Imhoof-Blumer attributes this coin to Alyzia owing to the bow, and the following to Argos because of the dog. These coins prove that it is dangerous to take the symbols as a guide for the classification.

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55. Babelon describes the coin as having the obverse from the same die as 291. This is certainly a mistake as the coin corresponds to our 129 d, and the obverse is A 55, Pl. XI.
56. Although this figure is very like to the Eros we often find on Greek vases (cf. Apulian vase in Bari reproduced in W. H. Roscher, *Lexicon der Griechischen und Röm. Mythologie*, p. 1181, f. 7) it may be the same local hero as the winged dolphin-rider on coin 121, pl. X.
57. The following coin in the same catalogue, 5119, Pl. 186, 4, is a colt of Argos.
58. Babelon describes the symbol as a bee and in his footnote 5 indicates that the coin is 23 of the Cat. of the B. M., pl. XXVIII, 5. This coin has a cicada for symbol and is our 141, pl. XIII. That the symbol represents a fly is proved by the large globular eyes and the abdomen, which are not those of a bee.
59. The following coin in the same cat., 5107, pl. 185, 12, is a coin of Leucas.
62. C. T. Seltman, *The Temple Coins of Olympia*, pl. V, die δζ.
63. The following coin illustrated by Babelon on pl. CCLXXXII, f. 6, is not of Ambracia but of Leucas (B. M. C., 85, pl. XXXVI, 14).
- 63^a. Cf. *Num. Chr.*, V ser., 24, p. 314.
64. Babelon describes this symbol as a branch of ivy, and Head as a climbing-plant. See p. 115.
65. The aspect of the A prompted Head to attribute this and the following coin to Anactorium.
66. Babelon places this coin under Anactorium, after Head; the obverse illustrated on pl. CCLXXVII, 20, does not belong to the coin; it is an obverse of Argos.
67. The letter beneath the Pegasos is A, not AM.
68. The first letter of the ethnic is certainly A and not Α as it is reported in the catalogue; this peculiar form of alpha is found only on much later coins.

69. Behind the Athena's head M does not exist, and beneath the Pegasos there is only A and not the monogram.
- 69^a. This specimen is described by Imhof-Blumer in "Griechische Münzen, p. 550, pl. II, 16. He supposes the Σ to be a sigma and being the same letter as on other colts of Leucas, Ambracia, Dyrhachium and Corinth, he thinks it may be the initial of *συμμαχία* or *συμμαχικόν*. The colts with the sigma would therefore be considered as alliance coins.
70. The obverse illustrated on Pl. CCLXXXI, 20, does not belong to this coin, but to 21 (Pl. XVI, 174). We are obliged to point out all these mistakes, probably due to misplacing of the plaster casts, because cases like the above would completely upset the established die-sequence, if they were correct.
71. Cousinéry, *Essai Historique*, p. 161. The girl is described as a copy of the Venus Callipygos. This extraordinary suggestion is surprising in a numismatist like Cousinéry.
72. Imhof-Blumer, *Nymphen und Chariten auf Griechischen Münzen*, *J. Int. d'Arch. Num.*, T. 11, 1908, p. 79.
73. Head, *op. cit.*, p. 104. The obverses of coins 5 and 6 are not described because the type corresponds to the heading, only the peculiarities are noted. Babelon thought on the contrary that these two obverses were the same as the previous one with AM, while in reality there is only an A on the Pegasos' hind-quarters. This is naturally very important, and if these two obverses really had AM, they would belong to a quite different period.
74. W. H. Roscher, *Lexicon der Griechischen und Röm. Mythologie*, B. I., p. 444, Apollo's attributes.

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75. Obverse illustrated on Pl. CCLXXXI, 12, does not belong to the coin 130a; it is die A 53. This is another misplaced plaster-cast like the above mentioned (note 70).
- 75^a. When I wrote the previously mentioned "Notes" I knew two specimens only of this coin and thought it therefore rare.
76. The name ΑΡΑΘΘΟΣ is not off-flan as Grose supposes, but over the head of the river-god; it can be seen on 116a, Pl. X.
78. This staff is clearly visible on coin 135 C; it reaches to the top of Ambrax' head-gear.
79. The symbol is described as a "serpent coiled round uncertain object"; this is the only case where it has been recognized.
80. Cousinéry, op. cit., was the first to see a swan on the coin and he carefully illustrated the *bird* on Pl. IV, f. 7.
81. Cousinéry, op. cit., p. 160, Pl. IV, f. 9. Mionnet, 3^{me} Suppl., 30 and 31.
82. Eckhel, Numi Veteres Anecdoti Musei Caesarei Vindobonensis, p. 123, pl. VIII, 19.
83. We supposed that this exceptionally light coin, in good preservation, was plated, and as we know of no other plated colt, this might have been interesting. Dr. K. Regling kindly informs us that the light weight is due to the oxidation and that the coin is certainly not plated.
84. Babelon places the coin under Leucas and calls the symbol a lobster, but as the claws are missing it is no doubt a shrimp.
- 85^a. Mr. Vlasto saw this coin among those that composed the Ionian-shore find (1908). If the dating of the find is correct, this coin should be of at least 365–360 B.C. and therefore the beginning of the fifth period should be earlier than 360 B.C.
85. The Temple Coins of Olympia, p. 94.

86. Curtius, Studien zur Geschichte von Korinth, Hermes, II, B. 2a H., p. 243.
87. Grose, op. cit. The symbol is partly off-flan and is questionably identified as a winged boar.
88. The obverse placed near the reverse of 20 on pl. CCLXXI belongs to this coin.
89. The leaves are the same as those on the branch on coin 93, Pl. VIII.
90. Babelon describes the flower as a poppy.
91. On the specimen in Berlin the inscription is off-flan.
92. Babelon, op. cit., T. IV, c. 37, Pl. CCLXXII, 5.
- 92^a. Cf. my "Notes," p. 307.
93. Naville sale, VII, 1924 (Bement).
94. Naville sale, XII, 1926 (Bissen).
95. J. Babelon, Cat. de la Collection de Luynes, pl. LXXI, 1886. This coin is from the same dies as 1, Pl. XIX.
96. Hermes, Band 2, Heft 2, 1875, p. 234.
97. Prof. Oman, op. cit., Num. Chr., 4th Series, Vol. IX, p. 336.
98. G. F. Hill, Ancient Methods of Coining, Num. Chr., V ser., Vol. II, p. 30 f.
99. See Cat. B. M., pl. II, n. 6, 19 and 20. Mr. Noe remarks that similar earrings are found on coins of Metapontum.
- 99^a. Gardner, op. cit., p. 371, 2, 3.
100. Prof. Oman, op. cit., pl. XXVII, N. 14 and 15. These coins are evidently made by the same artist. Prof. Oman dates this issue to 432-431 B.C. It is more probable that they belong to an earlier date.
101. Head, op. cit., p. 106, 17.
102. Head, op. cit., p. 109, 49.
103. Imhoof-Blumer, M. Gr., p. 137, 21.
104. Babelon, op. cit., T. IV, C. 125, 267.
105. I owe this hypothesis to my good friend Mr. M. P. Vlasto, who suggested that the two animals may symbolize two towns at war.

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106. Babelon, op. cit., T. I, c. 643. The lexicographers called the χελῶναι of Aegina, "χελώνη, νόμισμα πελοποννησιακόν."
107. E. Curtius, op. cit., p. 229.
108. Thuc., I, 108.
- 108^a. H. B. Earle Fox, Early coinage of European Greece, Corolla Numism., p. 39.
- 108^b. It will be observed that we speak of *turtle* while in reality the animal in the coils of the serpent is a land-tortoise; this is due to the fact that *turtle* is really not the exact translation of χελώνη as this word is generic and means both the sea-turtle and the land-tortoise.
109. Roscher, op. cit., I B., p. 1303 f.
- 109^a. It is well known that the serpent as well as the owl was the symbol of Athena and Athens.
110. E. Curtius, op. cit., p. 240.
111. Babelon, op. cit., T. III, c. 397. After the ruin of Aegina by the Athenians, the coins of Corinth spread all over the Peloponnesus, and the "colts" took the place of the "turtles" in this part of the Greek World.
112. Head, op. cit., p. 106, 16. It is certainly a mistake that in describing the head of Athena he should say: "wearing a leather cap." The only coin of this type with neck-guard is our N. 14.
113. Head, op. cit., p. 106, 17, 18.
114. Monn. Gr., p. 137, 21.
115. Num. Chr., 1926, Fifth Series, 24, p. 309.
116. C. T. Seltman, The Temple Coins of Olympia, p. 34.
117. Head, op. cit., p. 100.
118. See p.
119. Head, op. cit., p. 141, n. 4, and p. lxviii.
120. Babelon, op. cit., t. IV, c. 125, 271.
- 120^a. Revue Numismatique, IV ser., T. 8, p. 112.
- 120^b. Daremberg & Saglio, Dict. des Ant., Gr. et Rom., art. Infula.

That these fillets were made of wool is confirmed by some bronze coins of Phocis (cf. Babelon Tr., pl. CCV, 17 and 20), on which we see a fillet, no doubt the Delphic one, tied round the bull's horns and hanging down on both sides of the head.

This fillet corresponds probably to the red woollen fillet of the same shape that is still in use in southern Italy round the horns of the oxen, employed as a protection against the evil eye—a survival of the Greek apotropeion.

121. R. S. Poole, B. M. Cat., Italy, p. 313, 88.
122. Daremberg & Saglio, Dictionnaire des Antiquités Gr. et Rom., art. Incensarium.
123. Imhoof-Blumer, Die Münzen Akarn., p. 79. He supposes the symbol to represent a kind of rattle. We have seen that the instrument was used by swinging it to and fro; this would not be the best way to make it ring. If the end of the fillet was a bell it would have been more convenient to have it tied to a rigid rod, and the greatest ringing effect would have been obtained by shaking it, rather than by a swinging movement.
124. Head, op. cit., p. lvi. Preller, Gr. Myth., 4th Ed., p. 276. M. Collignon, Histoire de la Sculpture Grécque, t. I, p. 103. Babelon Tr., t. IV, c. 138.
125. Head, Hist. Num., p. 270.
126. Head, B. M. C., p. 104, 3 and 4.
127. Head, op. cit., p. 32.
128. Dr. K. Regling, Z. f. N., XXXIII, p. 51 f.
129. M. P. Vlasto, Alexander, son of Neoptolemos, Num. Chr., V ser., Pl. II, III, p. 182.
130. Seltman, op. cit., p. 163.
131. Num. Chr., 1926, V Ser., Pl. IV, p. 314.
132. This peculiarly shaped alpha is generally found on archaic coins only. In Ambracia on the contrary some of the archaic colts have the usual civic initial A with the straight crossbar (see 1, 2 and 3, Pl. I) and

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not until later is the crossbar slanting—sometimes upwards to left and sometimes upwards to right.

This archaic letter A is found often even on very late colts; it can be considered as a local form of the civic initial.

It is remarkable that Ambracia should have employed for this purpose an archaic letter, copying even in this her mother-city.

This A corresponds to the Ϙ (koppa) that is found on all the coins of Corinth and that is still her characteristic initial long after this archaic letter had been abolished and replaced by the K.

133. B. M. Cat., p. 115, 3.
134. E. Babelon, *op. cit.*, t. IV, p. 91, 194.
135. B. M. Cat., p. lix.
136. W. H. Roscher, *op. cit.*, p. 1358.
137. B. M. Cat., p. 104. These coins are placed immediately after the archaic ones.
139. B. M. Cat., pl. XXXIV, 16 and 17.
140. Num. Chr., 1926, V Ser., Pl. IV, p. 311.
141. Imhoof-Blumer, *Nymphen und Chariten*, J. I. A. N., t. 11, p. 79.
- 141^a. Vlasto in his ΤΑΡΑΣ ΟΙΚΙΣΤΗΣ, Num. Notes and Monographs 15, p. 130, illustrates a nomos of his collection inscribed TARANTINON on the obverse and TAPANTINON on the reverse. It is remarkable that one side should have both the archaic R and O while the other side has P and Ω. This case proves how little we can rely on epigraphic considerations for the dating of coins.
142. Cousinéry, *Essai*, p. 160, 8.
143. Similar corrections on Greek and Roman coins are known; cf. G. F. Hill, *Ancient Methods of Coining*, l.c., p. 25, where several cases are quoted.
144. Oberhummer, *op. cit.*, p. 223.
- 144^a. Mr. Newell observes that in Amphipolis the race-torch is certainly connected with the Apollo's head of the obverse.

145. Imhoof-Blumer, *Münzen Akarn.*, p. 29, 31.
146. *Mitteilungen d. Röm. Inst.*, 1886, p. 222.
147. *B. M. Cat.*, p. lv.
148. Imhoof-Blumer, *Nymphen und Chariten*, l.c., p. 79.
Dictionnaire des Antiquités Gr. et Rom., III, p. 867, f. 4306.
149. *B. M. Cat.*, p. 106. 18 is placed between 17 of the II period and 19 of the V.
150. J. N. Svoronos, *Stylides, Ancres Hierae, Aphlasta*, etc., *J. I. A. N.*, t. 16, 1914, p. 133. C. Carapanos, *op. cit.*, p. 133.
151. In the catalogue of the Pozzi Coll., 1783 (from the Hirsch sale, XXXI), the Pegasos is described as having AY on its hind-quarters. This is certainly a mistake; there is only an A, which stands for the civic initial, as does the Q on some Corinthian starters, placed in the same way (*B. M. Cat.*, pl. IV, 10).
152. R. Rochette, *Annali dell'Inst. di Roma*, t. I, p. 312, 316. E. Babelon, *op. cit.*, t. IV, c. 131.
153. E. Curtius, *St. zur Gesch. v. K.*, l.c., p. 230. Preller, *Aufsätze*, p. 431.
154. M. P. Vlasto, *TAPAΣ OIKIΣTHΣ*. *Num. Notes and Monogr.*, No. 15, p. 5.
155. M. P. Vlasto, *TAPAΣ OIKIΣTHΣ*. *Num. Notes and Monogr.*, No. 15, p. 6.
157. This staff was taken for a lance, but no point can be seen on either of the two known specimens.
158. Vlasto, *op. cit.*, p. 72, pl. III.
159. Imhoof-Blumer, *Fluss- und Meergötter auf griech. und röm. Münz.*, p. 219, 5, Taf. IV, 14. *Die Münz. Akar.*, p. 91, *Monnaies Grècques*, p. 138.
160. *B. M. Cat.*, p. lv.
161. E. Babelon, *op. cit.*, t. IV, c. 135, 136.
162. *B. M. Cat.*, p. lv.
163. Riggauer, *Eros auf Münzen*, *Zeits. f. Num.*, VIII B., 1881, p. 74 f.

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- 163^a. Roscher, *Lex. Gr. und Röm. Myth.*, p. 479.
164. Cf. p. 125.
167. E. Babelon, *op. cit.*, t. III, c. 434, pl. CCXII, n. 23.
168. E. Babelon, *op. cit.*, t. IV, c. 135.
169. W. H. Roscher, *op. cit.*, c. 677.
170. W. H. Roscher, *op. cit.*, c. 1697.
171. Prof. C. Oman, *The Fifth Cent. Coins of Corinth*.
Cf. p. 10 of the present work.
172. B. M. C., p. 108, 35 and 36. There is no Δ, but A
over the helmet.
173. See here p. 94.
174. S. Reinach, *Repertoire des Vases Peints*, t. IV, p. 371,
f. 2.
- 175^a. A strikingly similar boy is depicted on a marble slab
from Epidauros in the Athens National Museum.
Cf. TO EN AΘHNAIS EΘNIKON MOTΣEION, pl.
LXVII, 1424, and described by Svoronos on p. 146
as young Asklepios (?). (Cf. S. Reinach, *Repertoire
de Reliefs gr. und rom.*, t. II, p. 323, 3.)
176. *Arch. Zeitsch.*, 1850, p. 160.
177. Evans, *op. cit.*, p. 92.
178. W. H. Roscher, II B., p. 7. *Arist., Ran.*, p. 395.
179. W. H. Roscher, II B., p. 3. *Nonn., Dionys.*, 48, 951.
180. E. Babelon, *op. cit.*, t. IV, pl. CCLXXI, f. 22, 23, 24,
25. *Num. Chr.*, 1926, V Ser., p. iv, pl. XXI, n. 5.
181. Oberhummer, *op. cit.*, p. 231.
182. C. Carapanos, *op. cit.*, p. 133.
183. C. Carapanos, *op. cit.*, p. 166. *Dionys. Hal., Hist.
Rom.*, I, 14.
184. J. N. Svoronos, *Stylides, etc.*, l.c., p. 150.
185. S. Reinach, *Repertoire de la Statuaire Gr. und Rom.*,
t. IV, pl. 1, f. 1. *Kekulé, Dodona*, pl. I.
186. Oberhummer, *op. cit.*, p. 72.
187. 3me *Suppl.*, 30, 31.
188. B. M. *Cat.*, p. lvi.
189. Evans, *op. cit.*, p. 76.

190. E. Babelon, *op. cit.*, t. IV, c. 139.
191. Ταρσὸν εὐκτιμένην, ὅθι δὴ ποτε Πήγασος ἵππος
 ταρσὸν ἀφείς χώρῳ λίπεν οὔνονα, τῆμος ἀφ' ἵππου
 'ες Διὸς ἰέμενος πέσεν ἥρως Βελλεροφόντης.
 Dionysius the Periegete, 869 f.
192. J. Eckhel, *Numi Veteres Anecdoti ex Museis Caesareo Vindobonensi*, p. 124.
193. Evans, *op. cit.*, p. 106 f. M. P. Vlasto, Alexander, son of Neoptolemos, *l.c.*, p. 200 f.
194. J. N. Svoronos, *Stylides, etc.*, *l.c.*, p. 139.
195. The Temple Coins of Olympia.
196. Curtius, *St. z. G. v. K.*, *l.c.*, p. 242.
197. Evans, *op. cit.*, p. 142.
- 197^a. The breaking of these dies is probably due to the fact that the metal was brittle owing to insufficient annealing of the tempered steel. (Cf. S. W. Grose, *A Decadrachm by Kimon*, *Num. Chr.*, IV ser., 1916, p. 130.)
198. B. M. Cat., p. 105.
199. J. G. Droysen, *Geschichte des Hellenismus*, III T., p. 101.
200. Cousinéry, *op. cit.*, Pl. IV, n. 6.
201. In Paris there is another coin (Corinth 366 a) which is really a coin of Argos, with the same head wearing a conical pilos, added to the reverse.
- 201^a. A typical instance of the danger of this kind of forgeries is given by the tetradrachm of Gela formerly in the Pozzi collection (435). This coin, a common one, of well-known dies, has three large pellets, added by the same man, on the reverse. Nobody doubted that these pellets were genuine and Mr. Giesecke in his "*Sicilia Numismatica*" illustrates the coin on pl. 9, 5, and at p. 12 says: "These three pellets, undoubtedly marks of value, mean that this tetradrachm corresponds to three heavy diachms of the Euboic towns, and considerations based on this premise follow."

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- 202. L. O. Th. Tudeer, *Die Tetradrachmenprägung von Syrakus in der Periode der signierenden Künstler*, *Zeit. f. Num.*, 1913, p. 215 ff.
- 202^a. Cf. *Atti e Memorie dell'Istituto Italiano di Numismatica*, Vol. IV, p. 8, where Prof. P. Orsi mentions some of G.'s forgeries.
- 204. W. Schwabacher, *Mitteil. der Bayer. Num. Gesellschaft*, Frankfurt, 1925.
- 206. *B. M. Cat.*, p. xx.
- 207. Babelon, *op. cit.*, t. III, c. 385.
- 208. G. F. Hill, *The Frequency-table*, *Num. Chr.*, Fifth Ser., Vol. IV, p. 77 ff.
- 209. Gardner, *History of Ancient Coinage*, p. 376.
- 210. *Die Münz. Akarn.*, p. 48.
- 211. *Die Münz. Akarn.*, p. 88, 90.
- 212. Grose, *op. cit.*, Pl. 58, 13.
- 213. *Die Münz. Akarn.*, p. 88.
- 214. *B. M. Cat.*, p. liv.
- 215. *Num. Chr.*, V Ser., Vol. VI, p. 5, 6.

THE "COLTS" OF AMBRACIA



1a



2



3a



A7



A8



A8



8a



9a



10



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PLATE I

A4



5a

A5



6

A6



7



P4



P4



P3

A9



11a

A10



12a

A10



13

P6



P7



P8



THE "COLTS" OF AMBRACIA



14



15



16a



20a



21



22



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PLATE II



17a



18



19a



23



24



25



THE "COLTS" OF AMBRACIA



26



27



28



32a



33



34



PLATE III

A17



29

A18



30

A19



31

P17



P18



P19



A22



35

A22



36

A22



37

P23



P24



P25



THE "COLTS" OF AMBRACIA

A23



38

A23



39a

A23



40a



P26



P27



P28

A24



43c

A25



44

A26



45a



P30



P31



P31



PLATE IV



41a



42



43a



46a



47a



48



THE "COLTS" OF AMBRACIA

A27



49

A28



50

A28



51b

P33



P32



P26



A30



55d

A31



56a

A31



57a

P35



P34



P36



PLATE V



52



53



54



58a



59a



59d



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THE "COLTS" OF AMBRACIA

A32



A33



A33



60



P39

61



P40

62a



P41

A35



A35



A36



65d



P44

66



P43

67



P45



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PLATE VI



63a



64a



64b



68a



69a



70c



THE "COLTS" OF AMBRACIA

A36



71a

A37



72a

A37



73a

P49



P45



P46



A39



76a

A39



77

A40



78a

P51



P52



P53



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PLATE VII



P47

P50

P50



80

81b

82a



THE "COLTS" OF AMBRACIA



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PLATE VIII

A41



86a

A42



87a

A42



88a

P60



P57



P60



A44



92a

A44



93a

A44



93c

P63



P64



P64



THE "COLTS" OF AMBRACIA

A44



94a

A44



95d

A44



96

P65



P66



P67



A46



100a

A46



101a

A47



102b

P68



P69



P70



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PLATE IX

A45



97

A46



98

A46



99e

P63



P64



P65



A47



103a

A47



104a

A48



105a

P69



P68



P70



THE "COLTS" OF AMBRACIA

A48



106g

A49



108

A50



109

P71



P71



P73



A52



113a

A53



115

A53



116a

P76



P71



P78



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PLATE X

A51



110a

A52



111c

A52



112

P73



P74



P75



A53



116c

A53



117c

A53



117g

P78



P79



P79



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THE "COLTS" OF AMBRACIA

A53



118a

A53



119

A53



120a

P80



P81



P82



A55



125a

A55



125f

A55



126a

P84



P84



P78a



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PLATE XI



121



123a



124



127



128



129a



THE "COLTS" OF AMBRACIA



129d



130



131



P80



P81



135a



135b



135i



P86



P86



P86



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PLATE XII

A55



132

A56



133a

A56



134

P79



P81



P79



A57



136a

A57



137a

A57



138a

P87



P88



P89



THE "COLTS" OF AMBRACIA



139a



140a



140d



P91



P91



144



145



146a



P94



P94



PLATE XIII



141a



142b



143a



146h



147a



148a



THE "COLTS" OF AMBRACIA

A63



149a

A63



150a

A63



151a

P96



P97



P98



A66



155

A67



156

A68



157

P100



P100



P101



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PLATE XIV



152a



153a



154



158a



159



160



THE "COLTS" OF AMBRACIA

A71



A71



A71



161a



P104

162a



P105

163a



P106

A73



A74



A75



167a



P108

168a



P109

169a



P110



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PLATE XV

A72



164a

A72



165

A72



166

P107



P106



P105



A76



170a

A76



171a

A76



172

P111



P112



P113



THE "COLTS" OF AMBRACIA

A76



173a

A77



174a

A77



175a

P114



P115



P116



A77



179

A77



180c

A77



181a

P120



P121



P122



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PLATE XVI



176a



177a



178a



182



183a



184



THE "COLTS" OF AMBRACIA

A79



185

A80



186a

A80



187a

P126



P127



P128



A83



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P132



193



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PLATE XVII

A80



188

A82



190a

A83



191a

P129



P130



P131



195



a



1



THE "COLTS" OF AMBRACIA



2



3



4



8



9



10



PLATE XVIII



5



6



7



11



12



13



THE "COLTS" OF AMBRACIA



1



2



3



a



b



c



PLATE XIX



4



5



6



d



e



f



CJ
35
.N9

NUMISMATIC NOTES AND MONOGRAPHS

No. 38



THE COINAGE OF THE MEXICAN REVOLUTIONISTS

BY
HOWLAND WOOD

THE AMERICAN NUMISMATIC SOCIETY
BROADWAY AT 156TH STREET
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BY
HOWLAND WOOD



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THE COINAGE OF THE MEXICAN REVOLUTIONISTS

1913-1917

BY HOWLAND WOOD

PREFACE TO 1928 EDITION

In 1921 the monograph on "The Mexican Revolutionary Coinage" appeared. This was the first description of these coins and at that time comparatively little was known about them. What information was then available was from residents in Mexico, travelers returned from Mexico, and a few collectors. Since then a number of collectors in this country and a few in Mexico have specialized upon and studied this series, and it is to these workers that I am largely indebted for the new material in this edition.

When the first monograph was published it was felt that the list of pieces was far from complete and time has proved this. The earlier edition contained seventy-five numbers—in this presentment one hundred and eighty major varieties are described. It was at first planned to add a supplement, but for clarity and for convenience to the collector it was decided to rearrange the whole series. New numbers have been given the descrip-

tions but the old numbers of the first monograph follow the new number in parenthesis. The weights of the silver and gold pieces are given, as before, in grammes and grains.

It will be noted that the chief additions fall in the copper Durango and Zapata series. These baser coins were for the most part issued after the silver coins, and clearly reflect either the increasing scarcity of silver bullion, or the depreciation of the currency. A few errors which had crept into the initial monograph have been corrected in this edition.

Although the cabinet of The American Numismatic Society contains many of the pieces described, without the generosity and kindness of the collectors of this series this new material would not have been available. The writer wishes again to thank his several friends, who have been almost copartners in this work. I wish to acknowledge especially my indebtedness to Dr. Everardo Landa of Mexico City; Mr. E. Z. Little of Seattle, Washington; Mr. H. L. Hill of San Francisco, California; Mr. Farran Zerbe of Tyrone, Pennsylvania, as well as to Mr. Julius Guttag, Mr. Frank I. Liveright, and Mr. F. C. C. Boyd of New York; Mr. George F. Brown of Chicago; Mr. L. W. Hoffecker of El Paso, Texas; Mr. O. P. Eklund of Spokane, Washington, and the Reverend A. D. Chaurand of New York City.

Most of the Revolutionary coins may be termed scarce—and many are really rare. A few are

known by one specimen only. No especial attempt has been made to give the degree of rarity but a general statement has been made when thought best. In the description, where no especial acknowledgement is given, the piece is in The American Numismatic Society's collection or is common to most collections. In several instances where a piece is noted as being in a certain collection, the reference is to the piece illustrated, although examples may be in other cabinets. No attempt has been made to describe or number each minor variety, especially where the purpose was to make identical dies. The aim has been to over-illustrate rather than to show a few main types—and it is hoped that in cases where the reproductions are none too clear the reader will be indulgent, as the photographs were gathered from many sources and were made under varying conditions during the past seven years.

INTRODUCTION

War in its various phases has always had its influence on coinage; mints have changed hands or new mints have operated, new types or denominations have resulted, while special coinages, either necessity or emergency, have come out during such periods of unusual disturbance or stress. The by-gone coinage of Europe well attests this fact. The money of North and South America has frequently been influenced by war and political disturbances. Ever since the recent revolutionary era began

in Mexico, and there were prospects that coins might be issued, it has been the endeavor of The American Numismatic Society to obtain specimens of such coins and the data concerning them. The necessity of collecting all possible information and specimens at the time, while events were fresh and the coins could be acquired, was especially borne in mind. This decision was made chiefly because of the lack of knowledge concerning that previous series of crudely struck coins and counterstamped pieces, issued in Mexico by both the Patriots and Royalists during the War of Independence between 1810 and 1822. Then, unfortunately, and for a long time afterwards, little attention was paid to these early pieces, and not much pertinent and interesting information concerning them remains today, or if it does, it has not been resurrected for the numismatic fraternity. Although we have much knowledge and data concerning the extensive coinage of Morelos, the Commander of the Army of the South, there is much more we do not know. We have the coinage of General Vargas, struck at Sombrerete in Zacatecas, but numismatists know little about this man or his coinage. Also there are the various issues struck by the Royalists and the Central Junta, and the many counterstamped pieces, the product of the time, of which for the most part we are ignorant as to details. This is especially regrettable as these pieces would, with more information, be as interesting as any similar series issued in Europe.

Without attempting to trace the history of the present revolution or, rather, series of revolutions, we can see that the unrest in Mexico, which had been quietly slumbering for a number of years, had its beginning about 1910 when General Porfirio Diaz was elected president for the eighth time. Although the old gentleman was alive to the mutterings of discontent, he was overpersuaded by his advisers to continue his presidency. In November of that year the revolution started under the leadership of Señor Francisco Madero. Diaz had to leave Mexico in May, 1911, and, after a short period of provisional government, Madero became president. His rule was short-lived and lasted from November 6, 1911, until February 13, 1913, when within a few days after a *coup d'etat* he was murdered. During the next month rebellions again broke out in the North under the command of Generals Carranza and Villa, although some time before there had been in the South, where Zapata and his followers were strong, a very decided opposition to any of the existing governments.

During these first two years, events moved quickly, which resulted in many changes as to politics, but as far as coin issues were concerned we find nothing. With the rapid rise of the Constitutionalist forces of the North and the organization of their territory, we begin to get our revolutionary coinage. This was due probably to the urgent need of a more stable currency and the fact that the civil war had already devastated the land, and what

money there was formerly had been either buried or exported. The first currency to be issued consisted of enormous quantities of paper money which were extensively counterfeited and soon became practically valueless. In fact, it looked for a time as though numismatists would be poorly repaid for their trouble in trying to find any coins. As paper money cost practically nothing to issue, and for the most part was put into circulation by force, the necessity of coining money was reduced to a minimum. As a matter of fact when any silver or copper was actually coined, the bullion for it was either stolen or taken over by threats or by force, and the cost of production was consequently very small. Even when silver money was issued, it disappeared from circulation almost over night, as the flood of paper money made it profitable to melt up the new coin or else export it. Large amounts of coin were, nevertheless, in the country from the fact that much had been forced out of hiding by threats, torture, and other high-handed methods. Also it is a well-known fact that vast sums have been smuggled across the border into the United States. It has been reported that Villa, before his death, had sent into the United States several million pesos that he coined in Chihuahua.

The first of these revolutionary issues, especially in the North, were struck with the intention of giving full weight and value. In the South, the coins were stamped with values much in excess of their bullion worth, and later were followed in some

instances by a pure token coinage in copper with denominations of silver coins. The admixture of gold in the silver coins is interesting. When done intentionally the amount of gold was stated on the coin, as in the case of the Zapata and Oaxaca issues.

The scope of this monograph is the metallic coinage issued by the different revolutionary bands during the period in question. It makes no pretensions to chronicling the coins issued in Mexico City that followed the regular standards, nor is any attempt made to take up the many and various issues of paper and cardboard money that flooded the country.

One would naturally expect to find counterstamps as a result of the many changes, but these apparently have been very few. The probable reason for this absence of surcharging was the scarcity of coins to revalidate, and the fact that no great amount of enemy issues got into the possession of the other side.

SINALOA ISSUES

The first actual issue of coins made by the revolutionists was in the State of Sinaloa in June and July, 1913, from bullion taken from the Rosario Mine, by order of General Rafael Buelna.

- 1 (1).^{*} Peso. The regular Mexican eight reals or peso, with eagle on obverse and radiate liberty cap on reverse, as adopted in 1825 and issued almost continuously until 1910.

Size 38-39 mm. Weight 32.72 gm. (505 gr.).
Silver. Cast. Plate I.

^{*} The numbers in parentheses are those of the first edition.

It was reported that only 25,000 were cast, so poor were the results, as the casting was executed in coarse sand moulds. The pieces are rare, due to the fact that most of the issue was melted in the course of a few days because it was found that a large percentage of gold was in the bullion used. This had not been assayed before the pieces were made. Exaggerated tales were told at the time of the amount of gold in the pieces. As a matter of fact, the gold in these coins is far in excess of their face value; the pieces weigh about a fifth more than the standard Mexican peso.

- 2 (2). Peso. Same as No. 1, but counterstamped G. C.
Size 39 mm. Weight 32.2 gm. (497 gr.). Silver.
Cast. **Plate I.**

This counterstamp is said to be the mark of General Juan Carrasco, and is interesting because Carrasco shortly after issued dollars of his own, and probably at the same time stamped the few remaining Buelna dollars that had escaped the melting pot. This G. C. stamp has been interpreted by some as the abbreviation of General Carrasco, but the more probable reading is Gobierno Constitucionalista (Constitutional Government).

During the late autumn of 1913, General Juan Carrasco caused dollars to be cast at Culiacan in Sinaloa, using as a model the old liberty cap peso as in the previous instance.

3 (3). Peso. Same as No. 1, but showing the design more clearly.

Size 39 mm. Weights varying from 26.50 to 29.64 gm. (409 to 457.5 gr.). Silver. Cast.

Plate I.

These dollars, for the most part, show the design better than did the Buelna specimens, but the edges were left very rough and consequently had to be filed considerably. They can be distinguished more readily from the Buelna pieces by their weight. They are also rare because the bullion value in them was in excess of their face value, especially as the low valuation of the paper money made it profitable to melt them up. These pieces assay about nine-tenths silver, one-tenth copper and a small showing of gold.

4 Fifty Centavos. The regular Mexican 50 centavos issued since 1906, with eagle on obverse and large 50 under radiate liberty cap within wreath.

Size 31 mm. Weight 14 gm. (216 gr.). Silver. Cast.

Plate I.

5 Twenty Centavos. The regular Mexican 20 centavos of the type issued prior to 1906.

Size 24 mm. Weight 5.50 gm. (85 gr.). Silver. Cast.

Plate I.

The above pieces are of extreme rarity and were probably issued at the same time as the peso. They were both found in Sinaloa and are now in the collection of Dr. Everardo Landa, Mexico City.

PARRAL ISSUES

The next issue was a series of struck coins made at Parral in Chihuahua. It is said that the silver had been confiscated from near-by mines, and the rumor went around that they contained considerable gold. This, however, is probably not so. There are various conflicting statements about these coins. One account is that General Maclovio Herrera gave the order to make this money; another is that General Villa personally authorized it. Both versions may be correct. At any rate, this issue is known as Villa's first coinage, and it was probably first struck in October, 1913. Although it was thought that but few were issued, there is no doubt that a great many pieces were made—sufficient to meet the demand for these coins from collectors. This fact can be stated about these and subsequent coins of the revolutionists, namely, that more are undoubtedly seen in the United States than in Mexico, as the very large issue of paper and cardboard currency soon drove out the metallic money.

6 (4). Peso. *Obv.* H | DEL | PARRAL (Hidalgo del Parral), within a partial wreath and a half circle composed of annulets; at base, 1913.

Rev. 1 PESO within partial wreath and half circle of annulets.

Edge reeded. Size 39 mm. Weights of pieces examined vary from 25.92 to 27.59 gm. (400 to 426 gr.). Silver.

Plate II.

Mr. H. L. Hill has a specimen with plain edge. This piece shows the annulet at bottom of the wreath on reverse very clearly. The weight of this piece is 29.25 gm. (450 gr.).

Two very rare varieties of this peso have come to light in recent years. They are known as the 'bolita' pesos.

7 Peso. *Obv.* Same as No. 6.

Rev. A round boss or ball, 8 mm. in diameter, in centre, superimposed on a large *1* and *P[ES]O* within partial wreath and half circle of annulets. Edge plain or reeded. Size 38 mm. Weight about 32 gm. (493 gr.). Silver. **Plate II.**

8 Peso. *Obv.* Same as No. 6.

Rev. From the same die as No. 7 but the shaft of the *1* and the *ES* of *PESO* have been cut over the circular boss.

Edge plain. Size 38.5 mm. Weight 32 gm. (494 gr.). Silver. **Plate II.**

Only a very few specimens of these two pieces are known. Mr. E. Z. Little has examples of both varieties.

9 (5). Fifty Centavos. *Obv.* FUERZAS CONSTITUCIONALISTAS ∴ 1913 ∴ (Constitutionalist Forces). In centre, a crude representation of a radiate liberty cap, dotted border.

Rev. 50 | CENTAVOS; above, a small radiate liberty cap on pole, at each side spray of leaves, dotted border.

Edge reeded. Size 30 mm. Weights vary from 12.96 to 13.47 gm. (200 to 208 gr.). Silver.

Plate II.

Specimens have been noted with plain edge.

10 (6). Two Centavos. *Obv.* 2¢ in wreath within a circle, outside of which FUERZAS CONSTITUCIONA-
LISTAS I. Outside border of dots.

Rev. Within circle a radiate liberty cap; outside and on each side, spray of leaves; below, 1913, made by stippling.

Size 25 mm. Copper.

Plate II.

The copper used in the making of these pieces came from the trolley wire of the Parral-Santa Barbara Railway Company.

11 Same as No. 10 but struck in brass. Hill Collection.

DURANGO ISSUES

Probably the next issue, at any rate in the North, are the Muera Huerta pieces. These were coined at Cuencame, an old Indian village between Torreon and Durango, in Durango State, under orders of Generals Calixto Contreras and Severino Cenicerros.

These coins are most remarkable on account of the inscription—MUERA HUERTA (Death to Huerta). So dire a threat on a coin is almost unique in numismatic annals. It is said that Huerta was so enraged about it that he issued a proclamation to the effect that whoever was found in possession of one of these coins should be subject to death.

12 (8a). Peso. *Obv.* In centre, the regular Mexican eagle on cactus; above, EJERCITO CONSTITUCIONA-
LISTA; below, MUERA HUERTA. Border of irregular indentations.

Rev. In centre a radiate liberty cap; above, ESTADOS UNIDOS MEXICANOS; below, UN PESO | 1914; at each side, three stars. Border of dots and irregular indentations.

Edge crudely reeded. Size 39 mm. Weight 23.88 gm. (369 gr.). **Plate II.**

Judging by the style of the lettering, the dies of this piece were cut by the man who cut the Parral 50 centavos, No. 9.

This piece is very rare and I know of only two specimens, one in the collection of The American Numismatic Society and the other in the Hill Collection.

13 (7). Peso. *Obv.* In centre, the regular Mexican eagle on cactus; above, EJERCITO CONSTITUCIONALISTA (Constitutionalist Army); below, - MUERA HUERTA - .

Around border, continuous outer line and wide indentations.

Rev. In centre, a radiate liberty cap; above, ESTADOS UNIDOS MEXICANOS; below, ·1914· UN PESO. 1914. Border as on obverse.

Edge shows traces of crude reeding. Size 39 mm. The two specimens examined weigh 21.70 and 22.61 gm. (335 and 349 gr.). Silver. **Plate II.**

13a (7a). Peso. *Obv* Die of above, showing very bad breaks. **Plate II.**

14 (8). Peso. *Obv.* Similar to No. 13, but instead of a linear border line, one composed of dots and dashes was substituted; also the milled border is less marked and the oval pellets on each side of MUERA HUERTA are larger.

Rev. Same as No. 13.

Edge coarsely reeded. Size 38 mm. Weights of pieces examined vary from 19.47 to 23 gm. (300.5 to 355 gr.). Silver. **Plate II.**

Shortly after the above piece was struck, General Villa obtained possession of the dies and struck heavier pieces from them in Chihuahua.

15 (9). Peso. *Obv.* Same as No. 14.

Rev. Same as No. 14.

Edge plain or very slightly reeded. Size 39 mm. Weight of piece examined 28.50 gm. (440 gr.). Silver.

16 Peso. Same as above but struck in copper.

The two specimens noted of this rare piece, in the F. C. C. Boyd and in the H. L. Hill Collections, show the obverse die badly broken.

17 Twenty Pesos. Similar to above but on reverse instead of UN PESO, 20 PESOS.

Size 37 mm. Copper.

I know of only one specimen of this piece, which is in a collection in Mexico City, and have been unable to get any detailed information about it.

Besides the pesos a great many five- and one-centavos were issued in Durango, chiefly in copper, though occasional pieces come to light struck in brass or lead. The five-centavo pieces are slightly more common than the one-centavo. Usually the dies are crudely made and the pieces are badly struck.

- 18 (10).** Five Centavos. *Obv.* In centre, 1914; above ESTADO DE DURANGO; below, a wreath.
Rev. Within a circle of four-pointed stars, 5 CENTAVOS.

Size 24 mm. Copper.

Plate III.

- 19** Five Centavos. *Obv.* Similar to No. 18 but the inscription reads E. DE DURANGO, the date is smaller and in center of the field, the wreath at bottom extends to top of date.

Rev. Similar, but the 5 lighter and higher and the letters in CENTAVOS have serifs.

Size 24 mm. Copper.

Plate III.

This piece is in the Hill Collection and is better cut than the dies described under No. 20.

- 20 (11).** Five Centavos. *Obv.* a close copy of No. 19. The date is a little larger and more extended, and the wreath does not come to the top of the date.

Rev. A close copy of No. 19. The 5 is heavier and the letters are not as well executed.

Size 24 mm. Copper.

Plate III.

Of this variety I have noticed six obverse dies and five reverse dies making fifteen combinations.

- 21** Five Centavos. Same as No. 20, but struck in lead.

- 22 (12).** Five Centavos. *Obv.* Similar to No. 20 but the 1914 is smaller and lower down in the field, and the N in DURANGO is retrograde.

Rev. Similar but the c in centavos is square.

Size 24 mm. Copper.

Plate III.

16 THE COINAGE OF THE

23 (13). Five Centavos. Same as No. 22 but struck in brass.

24 Five Centavos. *Obv.* Same as No. 20.
Rev. Same as No. 22.
Size 24 mm. Copper.

25 (14). Five Centavos. *Obv.* Same as No. 19.
Rev. Similar but V CENTAVOS.
Size 24 mm. Copper. **Plate III.**

26 Five Centavos. *Obv.* Same as No. 22.
Rev. Same as No. 25.
Size 24 mm. Copper.

27 Five Centavos. Same as No. 26, but in lead.



28 Five Centavos. *Obv.* In centre 1914; above, E DE DURANGO; below, three five-pointed stars.
Rev. 5 CVS (S retrograde) within a border of large and small pellets.
Size 20 mm. Lead. Hill Collection. **Plate III.**

29 Five Centavos. *Obv.* In centre, Mexican eagle on cactus; above, REPUBLICA MEXICANA; below, wreath and date 1914.
Rev. In centre 5; above, ESTADO DE DURANGO; below, CENTAVOS.
Edge, plain. Size 25 mm. Brass.

This piece and the one-centavo in aluminum, No. 45, are of much better die work and were struck in a machine press. Two sets of dies have been noted.

Undoubtedly these pieces were not made in Mexico, and it is very unlikely that they were ever in circulation during the revolutionary period.

They and the one-centavo pieces are almost always found bright and unworn. They were unknown to collectors until after the revolution. It is said that a large quantity of these were bought by an antique dealer at an auction sale of goods remaining in the Mexican City Custom House. Many of them were subsequently used as gaming counters, which would account for a few showing slight signs of wear.

30 Centavo. *Obv.* In centre, 1914; above,  ESTADO DE  ; below, DURANGO.
Rev. 1 CENT. within a wreath. The 1 is thick and made solid.
 Size 20 mm. Copper. **Plate III.**

31 (15). Centavo. *Obv.* Same as No. 30.
Rev. Similar, but the 1 is not quite as thick and is shaded with horizontal lines.
 Size 20 mm. Copper. **Plate III.**

32 (16). Centavo. Same as No. 31 but struck in lead.
 Size 21 mm.

33 Centavo. Same as above, but incuse and retrograde.
 Size 22 mm. Lead.

This specimen from the Hill Collection was made by using two of the copper coins as dies.

34 Centavo. *Obv.* Same as obverse of No. 30.
Rev. Same as obverse of No. 31.
 Size 20 mm. Copper.

This muling of two obverse dies is in the E. Z. Little Collection.

35 Centavo. *Obv.* In centre, 1914; above, [+ E]
STADO DE + DURANGO.

Rev. 1 CENT within wreath, the N is cut like a v.
Size 19 mm. and 20 mm. Lead, struck. **Plate III.**

Of the several pieces examined, the E of ESTADO does not show and the S is retrograde. The workmanship is very poor.

36 Centavo, same as No. 35 but cast.
Size 19 mm. Lead.

37 Centavo. *Obv.* Similar to No. 35, but the date is smaller. The period is above and to the right of the O in DURANGO.

Rev. Similar to No. 35 but the figure 1 is Roman, the word CENT is in skeleton letters, and the C is square.

Size 20 mm., 1 mm. thick. Brass. Hill Collection. **Plate III.**

38 Centavo. Same as No. 37, but struck in lead.

39 Centavo. *Obv.* Same die as No. 37.

Rev. The wreath extends over the 1, the word CENT is a trifle smaller and the C is square.

Size 19 mm. Copper. **Plate III.**

40 Centavo. Same as No. 39, but struck in lead.
Farran Zerbe Collection.

41 Centavo. *Obv.* Similar to No. 37, but no period above O in DURANGO.

Rev. The 1 much smaller and thinner and a regular C in CENT.

Size about 20 mm. Copper.

Two different sets of dies noted, the top of wreath is much closer together on one than on the other.

42 Centavo. Same as No. 41, but struck in lead.

Plate III.

The dies used on the lead piece are not the same as those used on the copper piece.

43 (17). Centavo. *Obv.* Same as No. 28.

Rev. I CENT within a border of dots and dashes. The N in CENT is retrograde.

Size 30 mm. Copper.

Plate III.

44 Centavo. Same as No. 43 but struck in lead. Little Collection.

45 Centavo. *Obv.* Similar to No. 29.

Rev. Similar to No. 29 but I in place of 5.

Edge plain. Size 21 mm. Aluminum.

Plate III.

This is a companion piece to No. 29, and the same remarks apply.

CHIHUAHUA ISSUES

In 1914 the Villa issues, with the exception of the Muera Huerta pesos (No. 15), consisted of patterns and five-centavo pieces. The latter were issued in great quantities and are still common. The workmanship is about the best of any of the Revolutionary coinage.

46 Peso. *Obv.* Radiate liberty cap inscribed LIBERTAD. Below the rays the engraver's name,

SALAZAR; above, REPUBLICA MEXICANA; below, between ornaments, E. DE CHIHA.

Rev. Scales with book inscribed LEY; below in field → 1914 ← ; above, EJERCITO CONSTITUCIONALISTA; below, between ornaments, UN PESO.

Edge reeded. Size 38 mm. Weight 25.5 gm. (393 gr.).

Copper, coated with a thin silver wash. **Plate IV.**

This extremely rare coin is in the collection of Dr. Everardo Landa, and probably never got beyond the pattern stage.

- 47** Fifty Centavos. *Obv.* Radiate liberty cap inscribed LIBERTAD; below the rays, SALAZAR; above, REPUBLICA MEXICANA; below, E. DE CHIHA. *Rev.* 50¢ in monogram; above and below in small letters CINCUENTA — CENTAVOS; around, EJERCITO CONSTITUCIONALISTA; below, 1914. Edge reeded. Size 29 mm. Weight, 12 gm. (185.2 gr.).

Copper specimens are also known plated in silver. **Plate IV.**

This coin is probably only a pattern for a contemplated silver issue. Hill and Landa collection.

- 48** Fifty Centavos. The regular Mexican 50 Centavos issued since 1906, but with the name FRANCISCO VILLA punched in the field around the eagle on *obverse* and a 4 punched in over last figure of date on *reverse*, making the date read 1914. Size 30 mm. Silver. Landa Collection.

Plate IV.

49 (18). Five Centavos. *Obv.* Radiate liberty cap inscribed LIBERTAD; below the rays, SALAZAR; above, REPUBLICA MEXICANA; at bottom —+E. DE CHIHUA—.

Rev. 5¢ in monogram; above EJERCITO CONSTITUCIONALISTA; below, ✕ 1914 ✕.

Size 25 mm. Copper.

Plate IV.

The copper used in this issue is reported to have come from the telegraph and telephone wires of the vast Terrazas estates.

There were a large number of dies used, none presenting any marked variety but the one noted below.

50 Five Centavos. *Obv.* Same as No. 49.

Rev. Similar to No. 49, but ornaments at side of date thus ▷⊕◁.

Size 25 mm. Copper. Hill Collection. **Plate IV.**

51 Five Centavos. *Obv.* In centre regular Mexican eagle on cactus; REPUBLICA MEXICANA; below, wreath, and in small letters under, M. SEVILLA.

Rev. Same as obverse of No. 49.

Size 25 mm. Copper. Hill Collection. **Plate IV.**

52 (21). Five Centavos. *Obv.* Same as No. 51.

Rev. Same as the reverse of No. 49 but incuse, having been made by using a coin as a die.

Size 25 mm. Copper. George F. Brown Collection. **Plate IV.**

53 (19). Five Centavos. Same as No. 49 but date 1915.

Size 25 mm. Copper.

54 (20). Ten Centavos. *Obv.* Similar to No. 49 but larger and with denticulated border.

Rev. Similar to No. 49, but with 10¢ in monogram instead of 5¢, and the date 1915.

Size 27 mm. Copper.

Plate IV.

The silver issues of Villa for 1915 show decided improvement both in workmanship and in striking, although some of the planchets were poorly prepared. They were struck at Chihuahua from bullion taken largely from the Chihuahua Smelter, the property of the American Smelting and Refining Company. The issuing of this coin enabled Villa to recruit many men for the Sonora campaign, as he was able to pay his troops in silver while the other leaders could pay their men only in depreciated paper money. This coinage ran into millions. The obverse side bears the name of Sevilla and the reverse that of Salazar.

55 (22). Peso. *Obv.* In centre, regular Mexican eagle on cactus, near ground SEVILLA; above, REPUBLICA MEXICANA; below, wreath.

Rev. In centre, radiate liberty cap inscribed LIBERTAD, with SALAZAR underneath; above, EJERCITO DEL NORTE (Army of the North); below, UN PESO. CH^A. 1915. F.M. 902.7.

Edge reeded. Size 39 mm. Weights of pieces examined vary from 26.80 to 27.86 gm. (414 to 430 gr.), and were .903 fine. Silver.

This is also known in copper. A specimen in the Hill collection has been gilded.

Plate V

56 Peso. Same as No. 55, but from different dies, noticeable in the rays behind the liberty cap.

Edge reeded. Size 39 mm. Copper. Landa Collection. **Plate V.**

JALISCO ISSUES

The army of the North did not confine its mints to Chihuahua province, as we find a series of copper coins struck in Jalisco. The commander of the army in this state was Manuel M. Dieguez.

57 (23). Five Centavos. *Obv.* Radiate liberty cap, inscribed LIBERTAD, similar to No. 49; above, REPUBLICA MEXICANA; below, 1915.

Rev. 5¢ in monogram in centre; above, EJERCITO DEL NORTE; below, EDO. DE JAL. (Estado de Jalisco).

Size 24 and 25 mm. Copper. **Plate V.**

Three different die-varieties have been noted, one apparently without the word LIBERTAD on cap.

58 (24). Two Centavos. *Obv.* Similar to No. 57.

Rev. Similar, but with 2¢ instead of 5¢.

Size 21 mm. Copper. **Plate V.**

These pieces vary from 2½ to 1½ mm. in thickness.

59 (25). Centavo. *Obv.* Similar to No. 57.

Rev. Similar, but 1¢ instead of 5¢.

Size 19 mm. Copper. **Plate V.**

AGUASCALIENTES ISSUE

Francisco Villa struck the following pieces in this state:

60 (26). Twenty Centavos. *Obv.* In centre, regular

Mexican eagle on cactus; above, ESTADO DE AGUASCALIENTES; below, laurel wreath.

Rev. In centre a large 20; behind and above a large liberty cap on pole; below, in two lines, CENTAVOS | 1915; beneath and reaching up half-way only, a laurel wreath.

Edge plain or reeded. Size 30 mm. Copper.

Plate V.

This piece is also found cast in copper, possibly a contemporaneous counterfeit.

61 Twenty Centavos. Same as No. 60 but struck in silver. Very thick.

This piece and the pieces of other denominations struck in silver are probably pattern or gift pieces. Only one set is known and it is in a private collection in Mexico City.

62 Twenty Centavos. *Obv.* Similar to No. 60, but the eagle is smaller, and there is a period after the inscription.

Rev. Similar to No. 60, but the liberty cap is smaller and the wreath extends to the top of the figure 20.

Edge reeded. Size 30 mm. Copper. **Plate V.**

63 Twenty Centavos. *Obv.* Same as No. 60.

Rev. Same as No. 62.

Edge reeded. Copper.

64 (27). Five Centavos. *Obv.* Similar to No. 60.

Rev. Similar to No. 60, but 5 CENTAVOS.

Size 25 mm. Copper.

Plate VI.

65 Five Centavos. *Obv.* Same as No. 64.

Rev. 5¢ in monogram within laurel wreath; above, 1915. The 5 is shaded horizontally, the ¢ unshaded.

Size 25 mm. Copper. Little Coll. **Plate VI.**

66 (28). Five Centavos. *Obv.* Similar to No. 65, but lettering smaller.

Rev. Similar to No. 65, but the shading in the 5 is vertical.

Size 65 mm. Copper. John F. Le Blanc Collection. **Plate VI.**

67 Five Centavos. *Obv.* Same as No. 66.

Rev. Similar, but the 5 is unshaded and the ¢ is shaded. Size 25 mm. Copper. Hill Collection. **Plate VI.**

68 Five Centavos. There is a piece of this denomination struck in silver, but I have been unable to learn from which die the piece was made. See remarks under No. 61.

69 Two Centavos. *Obv.* Rayed liberty cap; below R. M. and two sprays; above, ESTADO DE AGUASCALIENTES.

Rev. 2¢, in monogram within wreath; above, 1915. Size 20 mm. Copper. Zerbe Coll. **Plate VI.**
Very rare.

70 Two Centavos. Same, but struck in silver.

71 Centavo. *Obv.* Similar to No. 69.

Rev. Similar to No. 69, but 1¢ in place of 2¢. Size 17 mm. Copper. Zerbe and Landa Collections. **Plate VI.**

Very rare.

72 Centavo. Same but struck in silver.

PUEBLA ISSUES

MADERO FACTION

73 Two Centavos. *Obv.* Mexican eagle on cactus within dotted circle; around, REPUBLICA MEXICANA: below 1915; outside, circle of dots.

Rev. In centre, 2 CENTAVOS within circle of dots; around, TET. LA DEL ORO Y OCAMPO E. DE PU (Tetela del Oro y Ocampo, Estado de Puebla).

Size 20 mm. Copper. Hill Coll. **Plate VI.**

Extremely rare.

Tetela is a district in the northern part of Puebla. The word Oro in the name alludes to the mineral wealth of the district, and Ocampo is an addition in honor of the martyr Melchor Ocampo, one of the heroes of Mexico.

MADERO BRIGADE

The following pieces were wrongly attributed in the first edition to the State of Coahuila. It is now known that they were issued in the northern part of Puebla.

74 (29). Twenty Centavos. *Obv.* In centre, Mexican eagle similar to that used on the regular Mexican 10 Centavos of 1899; below, 1915; around edge, BRIGADA FRANCISCO I. MADERO + S.N.D.P. +.

Rev. 20 CENTAVOS, in two lines; above, TRANSITORIO; at sides, small crosses.

Sizes 28, 29, and 30 mm. Copper. **Plate VI.**

Five pairs of dies of this piece, showing slight variations, have been noted.

75 Twenty Centavos. *Obv.* From one of the dies of No. 74.

Rev. Same as above, but no crosses at sides.

Size 28 mm. Copper. Julius Gutttag Collection.

76 Ten Centavos. *Obv.* Eagle and date similar to No. 74; around, + BRIGADA FRANCISCO I. MADERO + —.

Rev. XC in monogram; above, TRANSITORIO; below, S. N. DE PUEBLA (Sierra Norte de Puebla.).

At sides, small crosses.

Size 26 mm. Copper.

Plate VI.

This piece, which gives the key to where these coins were struck, was not known in the United States until several years after the appearance of the 20 Centavos. Most of these 10-Centavo pieces seen are bright red and uncirculated and are probably from a hoard.

ZAPATA ISSUES

In the South, Emiliano Zapata was one of the first to conspire against President Diaz, but his coinage did not begin until 1914. This at first consisted of silver two-peso pieces about the size of the old single peso pieces, and one-peso pieces about the size of a 50-centavo piece. In 1915, the size of the two-peso piece was reduced and various fractions of the peso were added to the series. In several instances the first coins were struck in silver but later were made of copper. The Zapata issues were struck in the states of Guerrero and Morelos. Those in Guerrero were struck in the

towns of Taxco, sometimes spelled Tasco, Atlixnac, and Campo Morado (Purple Camp), a rich mining camp which supplied most of the silver. The latter have the abbreviations Co. Mo. or C.M.

STATE OF GUERRERO

77 (30). Two Pesos. *Obv.* In centre, Mexican eagle on cactus, from the base of which spring sprays of oak and laurel; above, REPUBLICA MEXICANA; below, ★DOS PESOS. GRO. 1914:

Rev. A mountain range of three peaks; the centre one a smoking volcano, above and in centre, a radiate sun; across topmost rays, ORO: 0,595. Around edge, "REFORMA LIBERTAD. JUSTICIA Y LEY" (Reform, Liberty, Justice and Law). Edge reeded. Size 39 mm. Silver. **Plate VI.**

The GRO on the obverse is for Guerrero, the state where the pieces were made.

The weights vary from 17.46 to 27.42 gm. (269.4 to 421 gr.). There seem to have been two periods of striking these, as the heavier ones are comparatively well struck while the lighter ones are very poorly struck on wretchedly made planchets. A large number of dies were used but as it has been impossible to assemble a sufficient number of these for purposes of study no exact figure can be given. A few of the major variants are herewith noted.

Cast pieces, probably counterfeits, are occasionally met with.

78 (31). Two Pesos. *Obv.* Similar to No. 77, but the lower part of the legend reads ★DOS PESOS. GRO. 1915★.

Rev. Similar to No. 77.

Size 40 mm. Silver.

79 Two Pesos. Same, but struck in copper. Landa Collection.

80 (32). Two Pesos. *Obv.* Similar to No. 78, but no line under RO of GRO.

Rev. Similar to No. 77, but c^O. m^O., in exergue.

Size 39 mm. Silver.

Plate VII.

81 (33). Two Pesos. *Obv.* Same as No. 80.

Rev. Similar to No. 80, but exergue reads

★c^O.m^O.★

Size 39 mm. Silver.

The edges of the 1915 issues are reeded as in the previous year but some are so lightly done as hardly to show. The pieces noted of this year vary in weight from 22.15 to 30.03 gm. (342 to 463 gr.).

82 (34). Two Pesos. *Obv.* In centre, regular Mexican eagle on cactus; above, REPUBLICA MEXICANA; below, wreath of oak and laurel.

Rev. Radiate liberty cap inscribed LIBERTAD; below, DOS PESOS. C. M. GRO. 1915.

Edge plain. Size 35 mm. Weights of the two specimens examined, 18.66 and 20.08 gm. (288 and 310 gr.). Silver.

Plate VII.

83 (35). Peso. *Obv.* In centre, regular Mexican eagle on cactus, from the base of which spring sprays of oak and laurel; below base, 1914; above, REPUBLICA MEXICANA; below, ★UN PESO c^O. m^O. GRO★.

Rev. In centre, radiate liberty cap on pole; below, ORO: 0,300. Around edge, "REFORMA, LIBERTAD, JUSTICIA Y LEY."

Size 33 mm. Silver.

Plate VII.

The few specimens known are all poorly struck on rough flans and weigh from 16.33 to 16.52 gm. (252 to 255 gr.).

84 (36). Pesos. *Obv.* In centre, Mexican eagle on cactus, from the base of which springs sprays of oak and laurel; above, REPUBLICA MEXICANA.; below, ★UN PESO. CAMPO M^O.★

Rev. In centre, radiate liberty cap inscribed LIBERTAD within a wreath of oak and laurel; above GRO | ORO: 0,300; around edge, "REFORMA, LIBERTAD, JUSTICIA Y LEY" 1914.

Edge plain. Size 31 mm. Silver.

Plate VII.

85 (37). Peso. *Obv.* Similar to No. 84 but inscription at bottom reads only ★UN PESO.

Rev. Similar to No. 84 but liberty cap not inscribed.

Edge plain or reeded. Size 30 mm. Silver.

Plate VII.

86 Peso. *Obv.* Similar to No. 85, but the sprays at base of cactus extend slightly beyond the eagle's wings, and the inscription at the bottom reads ★UN PESO.

Rev. Same as No. 84.

Edge plain. Size 31 mm. Silver.

87 (38). Peso. *Obv.* Similar to No. 86 but inscription at bottom reads ★UN PESO★.

Rev. Similar to No. 84.

Edge plain. Size 31 mm. Silver.

- 88** (39). Peso. *Obv.* Similar to No. 85, but the oak and laurel spray extends nearly to the edge of the coin. Inscription at bottom ★UN PESO.

Rev. Similar to No. 84.

Edge plain. Size 31 mm. Silver. **Plate VII.**

The weights of these peso pieces, Nos. 84 to 88 vary from 12.57 to 14.52 gm. (194 to 224 gr.).

- 89** (40). Peso. *Obv.* Similar to No. 86, but bottom inscription reads ★UN PESO.

Rev. Similar, but inscription above liberty cap reads TAXCO. GRO | ★ G. | ORO: 0.300., and date in exergue, 1915.

Reeded edge. Size 30 mm. Silver. **Plate VIII.**

Specimens examined weighed from 10.89 to 12.44 gm. (168 to 192 gr.).

- 90** Peso. *Obv.* Similar to No. 89.

Rev. Similar; no star before G under TAXCO.

Reeded edge. Size 30 mm. Silver. Weight 11.6 gm. (179 gr.). Hill Collection.

- 91** Peso. *Obv.* Similar, but inscription reads ★REPUBLICA MEXICANA★ and UN PESO.

Rev. Similar to No. 90, but from a different die.

Reeded edge. Sizes 29–31 mm. Silver. Weight 11.5 gm. (177.5 gr.). Hill and Little Collections.

- 92** (41). Fifty Centavos. *Obv.* In centre, regular Mexican eagle on cactus; above, ★REPUBLICA★ MEXICANA★; below, wreath of oak and laurel.

Rev. Within a laurel wreath,—50¢ | ★TAXCO★
| GRO.; above, radiate sun bearing date 1915.

Plain edge. Size 28 mm. Weights vary from
8.81 to 10.85 gm. (136 to 168 gr.).

Silver.

Plate VIII.

93 Fifty Centavos. *Obv.* In centre, regular Mexican eagle on cactus; above, REPÚBLICA MEXICANA; below, wreath of oak and laurel.

Rev. Same as No. 92.

Plain edge. Size 28 mm. Copper. **Plate VIII.**

94 Fifty Centavos. *Obv.* Same as No. 88 but the UN PESO has been partly obliterated.

Rev. 50 CENTAVOS within wreath; above in two lines C. M. GRO. | 1915. The wreath has eight berries on each side.

Edge plain. Size 30 mm. Weight 13.50 gm. (208.4 gr.).

Silver. Landa Collection.

Plate VIII.

95 Fifty Centavos. *Obv.* Probably from same die as No. 85 but the UN PESO effaced.

Rev. Same as reverse of No. 94, but the die has been retouched; this is especially noticeable in the 5.

Edge plain. Size 30 mm. Copper. **Plate VIII.**

96 Fifty Centavos. *Obv.* From same die as No. 84, but the UN PESO CAMPO MO effaced and a few leaves added to the wreath.

Rev. Similar to No. 95 but the wreath has nine berries at left and seven berries at right. The period after GRO is between the top leaves of the branch.

Edge plain. Size 30 mm. Copper. **Plate VIII.**

- 97** Fifty Centavos. *Obv.* Same as No. 96.
Rev. Same as No. 95.
Edge plain. Size 30 mm. Copper.
- 98** (42). Fifty Centavos. *Obv.* In centre, regular Mexican eagle on cactus; above, REPUBLICA MEXICANA; below, oak and laurel wreath.
Rev. Similar to above, but the wreath has seven berries at left and nine berries at right, and the period after GRO touches the lower leaf of wreath.
Edge plain. Size 30 mm. Copper. **Plate VIII.**
- 99** Same as No. 98 but very base silver. Landa Collection.
- 100** Fifty Centavos. *Obv.* Same as No. 98.
Rev. Same as No. 95.
Edge plain. Size 30 mm. Copper.
- 101** Fifty Centavos. *Obv.* Similar but from a different die, the snake in the eagle's beak extends to the I of REPUBLICA, and the last letter of the inscription extends down to a line with the cactus.
Rev. Similar, but no period after GRO. Eight berries at left, nine berries at right.
Edge plain. 29 mm. Copper. Guttag Collection. **Plate IX.**
- 102** Fifty Centavos. *Obv.* Similar to No. 98 but a star before REPUBLICA.
Rev. Same as No. 95.
Edge plain. Size 30 mm. Copper. **Plate IX.**
- 103** Fifty Centavos. *Obv.* Same as No. 102.
Rev. Same as No. 98.
Edge plain. Size 30 mm. Copper.

104 Fifty Centavos. *Obv.* Similar, but the eagle is larger and the water shows more under the rock, the wreath reaches from each side and is not tied.
Rev. Same as No. 95.

This obverse shows a crack through MEXICANA and most specimens show a bad break at the bottom.

Plain edge. 29 and 30 mm. Copper. **Plate IX.**

105 Fifty Centavos. *Obv.* Similar to No. 93, but from a different die.

Rev. 50¢ in monogram within olive wreath; above, 1915.

Edge plain. Size 25–30 mm. Copper. **Plate IX.**

Although this piece has on it no indications as to where it was issued, it was probably struck in Guerrero.

106 Fifty Centavos. Same but with a light silvery wash. Hill Collection.

107 Fifty Centavos. *Obv.* Around in very crude lettering, REFORMA LIBERTAD JUSTICIA; in centre, above and below a crude rayed liberty cap, y LEY. Border of large dots.

Rev. Around, REPUBLICA MEXICANA E.; in centre, de | 50¢ | G | 1915. Border of large dots.

Edge plain. Size 34 mm. Weight 14.8 gm. (228.4 gr.). Silver. **Plate IX.**

I know of only one specimen of this piece, which is in the Hill Collection.

108 Twenty-five Centavos. *Obv.* In centre, rayed

liberty cap; around, *MEXICANA REPUBLICA*, border of large dots.

Rev. In centre, 25; around centavos E. D. G.; below, 1915. Border of large dots.

Edge plain. Size 25 mm. Weight, 7.50 gm. (115.8 gr.). **Plate IX.**

This is a companion piece to No. 107 and the dies were engraved by the same person. The one illustrated is from the Landa Collection. Although extremely rare, there are several pieces known.

109 Twenty Centavos. *Obv.* Same as No. 93.

Rev. 20 CENTAVOS, within wreath; above, C. M. GRO. | 1915. | ★

Edge plain. Size 27 mm. Copper. **Plate IX.**

110 Ten Centavos. *Obv.* Similar to No. 93, but a blank space under the left part of the cactus.

Rev. 10 CENTAVOS within wreath; above, in two lines, | GRO. | 1915.

Plain edge. Size 27 mm. Copper. **Plate X.**

These pieces vary in thickness from 1 to 3 mm.

111 Ten Centavos. *Obv.* Similar to above but the wreath at bottom does not extend beyond the eagle's wings and there is no blank space under the cactus.

Rev. Similar, but the GRO 1915 is more extended and there is no period after the date.

Edge plain. Size 27 mm. Copper. Little Collection. **Plate X.**

112 Ten Centavos. *Obv.* Very similar to No. 111, but the leaves on the cactus and the wreath are different.

Rev. Same as 111.

Edge plain. Size 28 mm. Brass. Hill Collection. **Plate X.**

- 113** (44). Ten Centavos. *Obv.* Similar but the tail of the snake in the eagle's claws is above the cactus.

Rev. Within wreath 10 CENTAVOS; above, in two lines ATLIXTAC. GRO. | 1915, no period after date. Berries in wreath five on each side.

Edge plain. Size 27-28 mm. Copper. **Plate X.**

Nearly all specimens show a die break on reverse.

- 114** Ten Centavos. *Obv.* Same as No. 93.

Rev. Similar to No. 113 but period after date and ★ before CENTAVOS.

Edge plain. Size 27 mm. Copper. **Plate X.**

- 115** Ten Centavos. *Obv.* Same as No. 92.

Rev. Same as No. 114.

Edge plain. Size 27 mm. Copper.

- 116** Ten Centavos. *Obv.* Same as No. 92.

Rev. Similar to No. 113, but the wreath ends in two leaves and the berries number ten and six.

Edge plain. Size 28 mm. Copper. **Plate X.**

- 117** Ten Centavos. *Obv.* Same as No. 92.

Rev. Same as No. 112.

Edge plain. Size 27. Copper.

- 118** Ten Centavos. *Obv.* Same as No. 92.

Rev. 10 CENTAVOS within wreath; above, in two lines TAXCO. GRO. | 1915.

Edge plain. Size 27 mm. Copper. Little Collection. **Plate X.**

119 Five Centavos. *Obv.* Similar to above.
Rev. 5¢ in monogram in wreath; above, in two lines GRO. | 1915.
Edge plain. Size 26 mm. Copper. Landa Collection. **Plate X.**

120 (43). Five Centavos. *Obv.* Same as No. 92.
Rev. Similar to No. 119, but above in one curved line ★TAXCO. GRO. 1915.
Edge plain. Size 28 mm. Copper. **Plate X.**

121 Five Centavos. *Obv.* Mexican eagle on cactus, short wreath below; above, ★REPUBLICA MEXICANA.
Rev. 5¢ in monogram within wreath; above in two lines 1915 | C.M.
Edge plain. Size 23 mm. Copper. Hill and Zerbe Collections. **Plate X.**

122 Two Centavos. *Obv.* Mexican eagle on cactus below wreath; above, EDO.DE GRO.
Rev. 2¢ in monogram within wreath; above, 1915; below, † (Taxco?).
Edge plain. Size 26 mm. Copper. **Plate X.**

This piece is somewhat rare. The specimen illustrated is from the Landa Collection.

123 Two Centavos. *Obv.* Mexican eagle on cactus; below, oak and laurel wreath; above, REPUBLICA ★MEXICANA.
Rev. 2¢ in monogram within wreath; above, 1915,
Edge plain. Size 22 mm. Copper. **Plate X.**

This rare piece is in the Hill Collection. Although there is no indication where the piece was

minted it was without doubt made in Guerrero, as the workmanship is not unlike that of several other pieces from this state.

The following is an issue from the Guerrero Mint in 1917, after hostilities had somewhat abated. The pieces are of good silver, and the workmanship is superior to the previous issues. A small number only must have been made, as all the pieces are scarce. The peso is extremely rare and is not represented in most collections.

124 Peso. *Obv.* Mexican eagle on cactus; below, wreath; above, REPUBLICA MEXICANA, in type similar to the pesos between 1898 and 1910.

Rev. Radiate liberty cap; below, ★UN PESO. GO. 1917. s. 10 DS. Similar to the pesos previous to 1910.

Edge imperfectly reeded. Size 38 mm. Weight 32.5 gm. (501.6 gr.). Silver. Landa Collection.

Plate XI.

125 Fifty Centavos. *Obv.* Mexican eagle on cactus; below, wreath; above ESTADOS UNIDOS MEXICANOS; similar in type to the regular coinage issued since 1906.

Rev. At top, a radiate liberty cap; below in four lines, 50 | GRO | CENTAVOS | 1917; the whole partly enclosed within a wreath as on the regular issue since 1906.

Edge plain. Size 30 mm. Weight 16.91 gm. (261 gr.). Silver.

Plate XI.

126 Twenty Centavos. *Obv.* Similar to No. 125.

Rev. Similar to No. 125 but 20 | G | CENTAVOS | 1917.

Edge plain. Size 21 mm. Weight 5.24 gm. (81 gr.). Silver. **Plate XI.**

STATE OF MORELOS

127 (46). Fifty Centavos. *Obv.* In center, Mexican eagle on cactus, from the base of which spring sprays of oak and laurel; above, REPUBLICA MEXICANA; below, MORELOS.

Rev. 50 CENTAVOS within laurel wreath; above, 1916.

Edge reeded or plain. Size 29. Copper. **Plate XI.**

Two obverse dies were used, as a rubbing was once shown me with the eagle's wings treated in fewer and thinner lines.

128 (45). Twenty Centavos. *Obv.* Mexican eagle on cactus; above, E. L. DE MORELOS. (Free State of Morelos); below, wreath of oak and laurel.

Rev. 20¢ in monogram within laurel wreath; above 1915.

Edge plain. Size 24 mm. Copper. **Plate XI.**

129 Ten Centavos. *Obv.* Crudely-cut Mexican eagle; above, REPUBLICA MEXICANA; below, MOR.

Rev. Within wreath, 10¢ in monogram; above, traces of 1914.

Size 24 mm. Copper. Zerbe Collection.

130 Ten Centavos. *Obv.* Same as No. 129.

Rev. Same as No. 129, but the date which appears to be on a panel has been effaced on the die.

Edge plain. Size 24 mm. Copper. Little Collection. **Plate XI.**

131 Ten Centavos. *Obv.* Same as No. 129.

Rev. Same as No. 130, but the date 1915 has been cut on a piece set in the die.

Edge reeded. Size 25 mm. Copper. Hill Collection. **Plate XI.**

These three 10-centavo pieces are very rare.

132 (47). Ten Centavos. *Obv.* Mexican eagle on cactus; above, REPUBLICA MEXICANA; below, wreath of oak and laurel.

Rev. Within laurel wreath 10 CENTAVOS; above in two lines, MOR | 1916.

Edge plain. Size 28 mm. Copper. **Plate XI.**

133 Five Centavos. *Obv.* Mexican eagle on cactus; above, REPUBLICA MEXICANA; below, laurel wreath.

Rev. Within laurel wreath 5¢ in monogram; above, 1915.

Edge plain. Size 19 mm. Copper. Little and Zerbe Collections. **Plate XII.**

Although this piece has no indication as to where it was struck, it probably was issued in Morelos.

134 Two Centavos. *Obv.* Mexican eagle on cactus; above, E. L. DE MORELOS.

Rev. 2¢ in monogram within laurel wreath; above, 1915.

Edge plain. 23 mm. Copper. Hill Collection. **Plate XII.**

135 Forty Centavos. 40 within a c in circular border of fine dots, forming a punch which was used to stamp on the current Mexican 2-centavo pieces. Size 25 mm. Copper. **Plate XII.**

- 136** Twenty Centavos. Same as above but 20 instead of 40 and stamped on the current 1-centavo pieces. Size 20 mm. Copper. **Plate XII.**

It is said that this punch was made at Cuernavaca in Morelos. The coins are scarce; the specimens illustrated are from the Hill and Zerbe Collections.

- 137** Twenty Centavos. *Obv.* Mexican eagle on rock in water; below, wreath; above, ★ REPUBLICA ★ MEXICANA ★.
Rev. 20 | CENTAVOS | 1915 within wreath; above, GRAL ★ L ★ S.
 Edge plain. Size 27.5 mm. Copper. **Plate XII.**

This rare piece in the Landa Collection was probably struck in Morelos, but the general who caused it to be struck is not known.

- 138** Fifty Centavos. *Obv.* Mexican eagle very crudely executed in incuse lines; below, wreath.
Rev. A large 50; above, ¢; below, a line. All in incuse lines.
 Edge plain. Size 28 mm. Copper. **Plate XII.**

It has not been ascertained where this and the following pieces were struck, but it is supposed they were made in Morelos. The planchets were punched out of sheet metal and the 50-centavo piece varies in thickness from 3 mm. to 1 mm.

- 139** Twenty-five Centavos. *Obv.* Similar to No. 138.
Rev. A large 25; above, ¢; below, a line.
 Edge plain. Size 25 mm. Copper. **Plate XII.**

140 Twenty cents. *Obv.* Similar to No. 138, but below eagle A. D J.

Rev. 20¢ in monogram; below, a line.

Edge plain. Size 19 mm. Copper. **Plate XII.**

141 Twenty Centavos. Same, but in brass. Landa Collection.

142 Twenty Centavos. *Obv.* A Mexican eagle in incuse lines; below, R. M.

Rev. Above, a large incuse 20; below, ¢.

Edge plain. Size 25 mm.; thickness 3 mm. Brass.

This rare piece is in the Landa Coll. **Plate XII.**

OAXACA ISSUES

Of all the revolutionary coins, those produced in the independent state of Oaxaca, during the governorship of Jose Inez Davila in 1915, form the most extensive series, especially as regards denominations and die varieties. Outside of the Mint of Mexico City, the only gold that was struck during this recent period of disturbance was from the Oaxaca mint, where a genuine effort was made to provide an adequate coinage to meet all local demands. This coinage circulated freely in Oaxaca city and the neighborhood. Notwithstanding the attempt to keep paper and metallic money on something like a parity, the coins were frequently melted down, so that the number of pieces in circulation was never very large. On March 3, 1916, the Carranza forces overcame the Oaxaca government, seized and melted down all they could find of

this coinage, and destroyed the dies and archives, so that today these pieces are scarce, especially in the United States. The denominations issued were as follows: in gold, 60, 20, 10, and 5 pesos; in silver, 5, 2, and 1 peso, 50 and 20 centavos; in copper, 20, 10, 5, 3, and 1 centavo. As there were various changes in designs and sizes, together with frequent mulings of obverse and reverse dies, it is claimed that a complete set of this Oaxaca issue would number about one hundred and fifty varieties.

Teofilo Monroy, long associated with the old mint, was the director of the revolutionary mint, and his son Miguel cut the dies, although those for the first series of copper coins were made by an American resident of the city named De Coe. Some of the punches used to make them were those found in the old mint. The obverse type, for the most part, was of one design—the bust of Benito Pablo Juarez facing left, and the inscription Estado L. y S. de Oaxaca (Free and Sovereign State of Oaxaca) and the date 1915.

The whole issue bears the date 1915, except the 60-pesos piece. This coin was made in the early part of 1916 shortly before the Carranza forces came in, and it is said that partly on this account and partly on account of the scarcity of bullion but twenty-one were struck. Each piece contained 45 grammes of pure gold.

143 (48). Twenty Pesos. *Obv.* Bust of Jaurez to left. Around, ESTADO L. Y S. DE OAXACA ★ 1915 ★ scalloped border of half circles enclosing half dots.

Rev. Partly enclosed in oak wreath 20 | PESOS | 0.175 | ORO; above, MONEDA PROVISIONAL; in exergue T. M.; scalloped border of half-circles and half-dots.

Edge reeded. Size 28 mm. Weights, 11.31 to 12.21 gm. (174½ to 188½ gr.). Base gold.

Plate XIII.

144 Twenty Pesos. *Obv.* Similar, but the tip of the bust points toward the date instead of toward the star.

Rev. Similar to above.

Edge reeded. 27 mm. Base gold. **Plate XIII.**

145 (49). Ten Pesos. *Obv.* Similar to No. 143, except that the border is composed of arcs rather than half circles.

Rev. Similar to No. 143, except 10 instead of 20. Edge reeded. Size 23 mm. Specimens examined weighed from 6.22 to 6.28 gm. (96 to 97 gr.). Base gold. **Plate XIII.**

146 (50). Five Pesos. *Obv.* Similar to No. 143, except that the date runs into the coat of Juarez and the stars are four-pointed.

Rev. Similar to No. 143, except 5 instead of 10, and a period after PESOS. The border is composed of arcs rather than half-circles.

Edge reeded. Size 19 mm. Specimens examined weighed 3.34 to 3.79 gm. (5½ to 58½ gr.). Base gold. **Plate XIII.**

These four pieces, as the title 0.175 indicates, contain very little gold. They present a brassy or lemon-colored appearance. The initials T M on the reverses of these and most of the other

coins are for Teofilo Monroy, the director of the mint.

147 (51). Five Pesos. *Obv.* Similar to No. 143.

Rev. In centre 5, in circle AG 0.902 AU 0.010 PESOS.; above, MONEDA PROVISIONAL; below, oak wreath and T.M.

Edge reeded. Size 31 mm. Of the several pieces examined, the weights vary from 16.62 to 16.78 gm. (256½ to 259 gr.). Silver.

Plate XIII.

148 (52). Five Pesos. Same as No. 147, but size 32½ mm. and weight 17.30 gm. (267 gr.). One obverse and two reverse dies have been noted.

149 (53). Two Pesos. *Obv.* Same as No. 145.

Rev. Similar to No. 147, but 2 in place of 5.

Edge reeded. Size 22 mm. Weights noted vary from 5.96 to 6.48 gm. (92 to 100 gr.). Silver.

Plate XIII.

Two obverse dies and one reverse have been noted, one of the obverse dies being the same as used on the 10-peso piece, No. 145. Proofs in copper were also struck. This style of the two-peso piece is known as the fourth issue.

150 (54). Two Pesos. *Obv.* Same as No. 149 but no punctuation in legend.

Rev. A pair of scales over scroll of the Constitution and a sword in saltire; on the scroll, LEY; above, liberty cap in a glory. Around, MONEDA PROVISIONAL; below, 2 PESOS.

Edge, rope pattern. Size 33 mm. The speci-

mens that have been weighed vary from 14.19 to 14.77 gm. (219 to 228 gr.). Silver. **Plate XIII.**

Two sets of dies have been noticed. This type is known as the first issue.

151 Two Pesos. *Obv.* Similar to No. 150 but periods after L and S in legend.

Rev. Similar to No. 150 but DOS PESOS instead of 2 PESOS.

Edge plain, or rope pattern. Size 33-34 mm. Weight 14.14 gm. (218.2 gr.). Silver. Hill Collection. **Plate XIII.**

Two obverse and two reverse dies have been noted.

152 (55). Two Pesos. *Obv.* Similar, but commas after L, S, and end of legend and a period after date.

Rev. Similar to No. 151 but from a new die. Edge, rope pattern. Size 34 mm. Weights vary from 14 to 14.45 gm. (216-223 gr.). Silver.

The above pieces are known as the second issue.

153 (56). Two Pesos. *Obv.* Similar, but the die being intended for a peso piece, the edge of the die shows, making a broad confining band outside the border of arcs.

Rev. In centre, 2 PESOS; above, MONEDA PROVISIONAL; below, oak wreath and T.M. Border composed of arcs of circles.

Edge, rope pattern, size 31 mm. The weights of the several pieces examined vary from 15.36 to 16.98 gm. (237 to 262 gr.). Silver.

Plate XIII.

Specimens in copper are also found. This is known as the third issue.

154 Same as above, but cast; the edge, however, is reeded. Hill Collection.

The edges of most of the balance of the series are of the rope pattern and consequently will not be noted.

155 (57). Peso. *Obv.* Same dies as No. 153.

Rev. Similar to No. 153, but UN PESO instead of 2 PESOS and without the T. M.

Size 28 mm. Weight 8.51 gm. (131½ gr.). Silver.

156 (58). Peso. *Obv.* Same as No. 155.

Rev. Same as No. 155.

Size 26 mm. Average weight 7.71 gm. (119 gr.).

Silver. **Plate XIV.**

At least three obverse dies have been noted, one of which is the same die as No. 155. Two reverse dies were used and on one of these the initials T M were added, making three varieties.

157 Fifty Centavos. *Obv.* Similar to above but the border is composed of dots and curved dashes.

Rev. Similar to No. 156, but 50 CENTAVOS in place of UN PESO.

Size 28 mm. Weight 12.31 gm. (190 gr.).

Silver. Hill Collection. **Plate XIV.**

This extraordinary piece probably was never put into circulation, being nearly three times as heavy as the regular issues. The obverse die has not been noted combined with any other dies.

- 158** (59). Fifty Centavos. *Obv.* Similar to No. 157.
Rev. Similar to No. 157.
 Size 22–23 mm. Weight 4.08 to 5.57 gm. (63 to 86 gr.). Silver. **Plate XIV.**

At least five obverse dies are known and two reverse dies, one with and one without the initials T M. The five obverses are illustrated, and marked a, b, c, d, e.

- 159** Fifty Centavos. *Obv.* Same as No. 158. Die c.
Rev. Same as No. 158, without T M.
 Edge plain. Weight 2.8 gm. (43.2 gr.). Thickness 1 mm. Silver. Hill Collection.

- 160** (60). Twenty Centavos. *Obv.* Similar to above, but the die is of the 1 centavo copper piece, No. 176.
Rev. Similar to above but 20 CENTAVOS instead of 50.
 Size 20 mm. 4.31 gm. (66.5 gr.). Silver. Little Collection. **Plate XIV.**

- 161** (61). Twenty Centavos. *Obv.* Similar to No. 147.
Rev. Similar to No. 160.
 Size 31 mm. Copper. **Plate XIV.**

- 162** Twenty Centavos. Same as No. 161 but counterstamped with a radiate liberty cap above the 20. Hill Collection. **Plate XIV.**

- 163** (62). Twenty Centavos. *Obv.* Similar to No. 161.
Rev. Similar to No. 161.
 Size 28 mm. Copper.

The obverse dies of this piece apparently are the same ones used for the two-pesos, No. 153 and the 20-peso pieces, Nos. 143-144. Two reverse dies were used, one with and one without the initials T M.

164 (63). Ten Centavos. *Obv.* Similar to No. 163, but the head of Juarez without modeling and the tip of the bust pointed.

Rev. Same as above, but 10 CENTAVOS. Size 26 mm. Thick and thin planchets. Copper.

Plate XIV.

At least three pairs of dies were used. The thick specimens were the first issued and were soon melted down.

165 Ten Centavos. Same as No. 164, but struck on a planchet for a 5-centavo piece.

Edge plain. Size 22½ mm. Copper.

166 (64). Ten Centavos. *Obv.* Same as No. 156.

Rev. Similar to No. 164.

Size 26 mm. Copper.

Five or more obverse dies were used, several the same as used on the peso pieces, and at least three reverse dies were made, two dies with the T M and one without.

167 Ten Centavos. Same as No. 166, but counter-stamped G V on obverse. This piece, which is in the Hill Collection, is said to have been counter-stamped for General Vigil.

Plate XIV.

168 Five Centavos. *Obv.* Upon a raised back-

ground a three-quarters facing bust of Juarez rendered in incuse lines; upon depressed circular border in raised letters ESTADO L. Y S. DE OAXACA ★ 1915 ★.

Rev. Similar to No. 164, but 5 CENTAVOS.

Size 21 mm. Copper. Little Coll. **Plate XIV.**

It has been reported that this was the first die cut and it undoubtedly proved unsatisfactory and a profile was adopted. The piece is extremely rare.

169 (65). Five Centavos. *Obv.* Similar to No. 164.

Rev. Similar to No. 168.

Thick planchet. Size 24 mm. Copper. This piece belongs to the first issue.

170 (66). Five Centavos. *Obv.* Same as No. 169.

Rev. Same as No. 169.

Thin planchet. Size 22 mm. Copper. **Plate XV.**

Two obverse dies have been noted.

171 (67). Five Centavos. *Obv.* Same as No. 158.

Rev. Same as No. 169.

Thin planchet, 22–23 mm. Copper. **Plate XV.**

The obverse dies are the same as used on the 50 centavos as well as on the 10 pesos and small 2 pesos (Nos. 149 and 145). And at least three reverse dies were used, with and without the initials T M.

172 (68). Three Centavos. *Obv.* ESTADO | L.Y S. DE | OAXACA 1915 | in rectangular frame. A five-pointed star in each corner.

Rev. PROVÍSO | NAL. TRES | CENTAVOS | .—TM—.

A five-pointed star in each corner.

Rectangular 24 x 16 mm. Plain edge. Copper.

Plate XV.

This and No. 175 were makeshifts while other dies were being prepared, and very few of them were put into circulation.

173 (69). Three Centavos. *Obv.* Similar to the 5-peso piece No. 146, but with a border of half circles and dots, as No. 144.

Rev. Similar to above, but in centre a large, flat-topped 3; below, CENTAVOS. The N is retrograde. Border of half circles.

Size 20 mm. Copper.

Plate XV.

174 (70). Three Centavos. *Obv.* Same as No. 173.

Rev. Similar, but the 3 is smaller and with a round top. T M added above wreath.

Size 20 mm. Copper.

Plate XV.

This obverse die was originally intended for the 5-peso piece, No. 146, but was too large.

175 (71). Centavo. *Obv.* Similar to No. 172, but inscription in three lines, the date being omitted. Dotted instead of linear border, and no stars in the corners.

Rev. Inscription in three lines instead of four as on the 3-centavo piece, the T M being omitted. The word UN is substituted for TRES.

Rectangular, 9 x 13 mm. Plain edge. Copper.

Plate XV.

176 (72). Centavo. *Obv.* Same as the silver 20-centavo piece No. 160.

Rev. Similar to No. 160, but large 1¢ in monogram in centre.

Thick. Size 18 mm. Copper. **Plate XV.**

177 (73). Centavo. *Obv.* and *Rev.* Same as No. 176.

Thick and thin planchets. Size 19 mm. Copper.

There were two sets of dies used in making these pieces.

Judging from the only example of the coinage for the next year, the issues for 1916 would have been equally extensive, and in all probability of better workmanship, if the Davila government had remained in power at Oaxaca. As it happened, the Free and Sovereign State of Oaxaca closed its numismatic existence with probably the most interesting as well as best executed specimen of the revolutionary coins.

178 (74). Sixty Pesos. *Obv.* In centre, within an open wreath of olive and oak, an undraped bust of Juarez facing left. Surrounding this the legend: ESTADO L. Y S. DE OAXACA—60 PESOS ORO. Ornamented border.

Rev. In centre, a pair of scales over scroll of the Constitution and a sword in saltire; on the scroll, LEY; above, liberty cap in glory. Around, REPUBLICA MEXICANA—902.7 ★ T.M. ★ 1916.

Ornamented border.

Edge reeded. Size 39 mm. Weight 50 gm. (772 gr.). Gold. **Plate XV.**

Copper impressions with plain edge are known.

MEXICO STATE

TOLUCA

Although the two pieces listed under this state are not metallic they are considered of sufficient interest to be included in this list.

179 Five Centavos. *Obv.* In centre, coat of arms partly enclosed within a wreath; under the shield in small letters TOLBEA; above, ESTADO LIBRE Y SOBERANO DE MEXICO; below, TOLUCA.

Rev. In centre, a large 5, across which on scroll, CENTAVOS; ornaments at sides; above, CIRCULARA CONFORME AL DECRETO N: 4 DE; and below + III. 1.915. + Size 27 mm. 2 mm. thick. **Plate XV.**

The whole is stamped intaglio on grey bookbinders' pressboard, and is somewhat rare.

TEXCOCO

180 Centavo. In 1915 there was an issue from this town in reddish terracotta, size 15 mm. and 3 mm. thick. A specimen is owned by a collector in Mexico City.

Plate I





COINAGE OF MEXICAN REVOLUTIONISTS.



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Plate II



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13 a



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COINAGE OF MEXICAN REVOLUTIONISTS.



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Plate III



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COINAGE OF MEXICAN REVOLUTIONISTS.



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Plate IV



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COINAGE OF MEXICAN REVOLUTIONISTS.



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Plate V



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COINAGE OF MEXICAN REVOLUTIONISTS.



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Plate VI



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COINAGE OF MEXICAN REVOLUTIONISTS.



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Plate VII



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COINAGE OF MEXICAN REVOLUTIONISTS.



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Plate VIII



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COINAGE OF MEXICAN REVOLUTIONISTS.



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Plate IX



107



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COINAGE OF MEXICAN REVOLUTIONISTS.



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112



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114



116



118

Plate X



119



120



121



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123





COINAGE OF MEXICAN REVOLUTIONISTS.



124



126



126



125



Plate XI



127



128



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COINAGE OF MEXICAN REVOLUTIONISTS.



133



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135

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Plate XII



138



139



140



142

COINAGE OF MEXICAN REVOLUTIONISTS.



Plate XIII



150



151



153



COINAGE OF MEXICAN REVOLUTIONISTS.



156



157



a



b



c



158



d



e



160



Plate XIV



161



162



164



167



168





COINAGE OF MEXICAN REVOLUTIONISTS.



170



171



172



173



174



175



176



Plate XV



178



179



178



CJ
35
N9

NUMISMATIC NOTES AND MONOGRAPHS

No. 39



ALEXANDER HOARDS OLYMPIA

BY
EDWARD T. NEWELL

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ALEXANDER HOARDS

IV. OLYMPIA

BY
EDWARD T. NEWELL



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ALEXANDER HOARDS

IV

THE OLYMPIA HOARD

BY EDWARD T. NEWELL

Late in the Autumn of 1922 the parcel of silver coins described in the following pages was offered for sale to the writer. All the coins were of identical appearance, comprising a rather singular combination of patches of red iron-rust and green *vert-de-gris* on an even though comparatively thin surface-covering of purple oxide. It was at once obvious that the pieces had all come from a single find. In fact, the owner, a certain Greek importer then residing near Boston, stated that the coins had recently been forwarded to him for sale from Olympia. He further stated that they were said to have come from a hoard unearthed at or near Olympia itself but that he did not know whether they constituted the entire find or not.¹ After somewhat lengthy negotiations, the writer finally acquired the lot, on the understanding that an attempt would be made to secure further information concerning the find as well as the remainder (if existent) of the hoard itself. Shortly after this, the gentleman departed for his home in Greece and, unfortunately, in spite of numerous letters, has not been heard from since. Inquiries were

2 ALEXANDER HOARDS

also made, though in vain, at the Boston Museum of Fine Arts, where he was well known. Probably he simply let the matter drop.

The writer also attempted to secure further information concerning the hoard through acquaintances in Greece, but without any very definite success. It is true, though, that one of the Athenian dealers informed Mr. S. P. Noe, Secretary of the American Numismatic Society, during his sojourn in Greece in 1922-23, that he had heard of a hoard of silver coins supposed to have been found near Olympia and that he was expecting their arrival at any time. But these coins seem never to have materialised or at least never reached that particular dealer.² Therefore the writer, despairing of being able to obtain further information, has decided to publish the Olympia parcel just as it is. It is of sufficient interest in itself, whether it actually comprises the entire hoard or is merely a portion of a much larger find.

In our little lot we have before us a typical third century Peloponnesian hoard, similar to ones already found at Epidaurus, Kyparissia (late fourth century), Patras, Sophikon, Sparta, etc.³ Like its companions, our hoard is composed of a varied assortment of royal and autonomous issues of all ages, climes, and weight-standards. Like them, too, the issues of Corinth are conspicuous by their absence. The predominance of Elean issues (31 pieces as against the next largest category, the Alexandrines, with 18 pieces) fully corroborates the former owner's statement that the hoard had been found in Elis. His further assertion

that the coins had been discovered in or near Olympia itself may therefore also be correct. At any rate, for convenience' sake, the designation "Olympia" has been adopted for our find. The catalogue of the varieties contained therein is as follows:

ELIS

(Cf. The Temple Coins of Olympia by C. T. Seltman, and Babelon's *Traité* etc., II³.)

1. Stater. (Seltman, circa 421–385 B.C.; Babelon, 421–402 B.C.) Head of Hera to r. wearing stephanos. *Rev.* Thunderbolt, between F-A, in wreath of wild olive. The coin is too much worn to be reproduced. It is also too worn to distinguish the dies with certainty. The obverse appears to be the same as Mr. Seltman's EN, but the reverse is unlike anything reproduced on his plates. Gr. 11.20.
2. Hemidrachm. (Seltman, circa 421–365 B.C.; Babelon, 431–421 B.C.) Eagle's head to r. *Rev.* Thunderbolt surrounded by olive wreath. Very worn. Gr. 2.37. PLATE I.
3. Stater. (Seltman, circa 363–343 B.C.; Babelon, 323–300 B.C.) Laureate head of Zeus to r. *Rev.* Eagle, between F-A, standing to r. on Ionic capital. The obverse die is Seltman's CB, the reverse die appears to be unknown to him. Somewhat worn. Gr. 11.93. PLATE I.

4 ALEXANDER HOARDS

4. Stater. Similar. From the same obverse die (Seltman's CB) but from another reverse die, also unknown to Seltman. Considerably worn. Gr. 11.77. PLATE I.
5. Stater. (Seltman, circa 271–191 B.C.; Babelon, 323–300 B.C.) Laureate head of Zeus to r. *Rev.* Eagle standing to r. on thunderbolt. In field, F-A above Δ-I and thunderbolt. Seltman's dies DA and ξλ. Slightly worn. Gr. 11.59. PLATE I.
6. Stater. (Seltman, circa 363–323 B.C.; Babelon, 402–323 B.C.) Head of Hera to r. between F-A. *Rev.* Eagle with open wings standing to r. in olive wreath. The obverse is Seltman's die EZ, the reverse is his ιγ (Sic!). Somewhat worn. Gr. 11.67. PLATE I.
7. Stater. (Seltman, circa 363–323 B.C.; Babelon, 365–323 B.C.) Similar head to r. between F-A. *Rev.* Eagle, with open wings and head reverted, standing to r. in olive wreath. Seltman's dies FK and κν. Worn. Gr. 11.10. PLATE I.
- 8–14. Hemidrachms. (Seltman, circa 323–271 B.C.; Babelon, 323–300 B.C.) Laureate head of Zeus to r. *Rev.* Eagle, between F-A, standing to r. on Ionic capital. In r. field, A. Worn to good. Grs. 2.20; 2.25; 2.26; 2.27; 2.30; 2.34; 2.38. PLATE I.
- 15–18. Hemidrachms. (Gardner, 271–191 B.C.; Babelon, 323–300 B.C.) Laureate head of

THE OLYMPIA HOARD 5

Zeus to r. *Rev.* Thunderbolt, between F-A, upright in wreath of olive. Somewhat worn to very fine. Grs. 2.28; 2.31; 2.32; 2.35. PLATE I.

19-25. Hemidrachms. Similar, but the leaves of the olive wreath are smaller and more numerous. Mostly very fine. Grs. 2.26 (two specimens); 2.30; 2.33; 2.35; 2.36; 2.37. PLATE I.

26-30. Drachms. (Seltman, B.C. 191-?; Babelon 323-300 B.C.) Eagle flying to r. and grasping hare with his talons. *Rev.* Between F-A thunderbolt containing heart-shaped pomegranate (or ivy leaf) and pinecone. Very fine or brilliant. Grs. 4.72; 4.73; 4.75; 4.80; 4.83. PLATE I.

31. Drachm. Similar, and from the same obverse die but a different reverse die. Brilliant. Gr. 4.76. PLATE I.

SICYON

32. Stater. (Babelon, 400-300 B.C.) Chimaera to r. Beneath, ΣE . *Rev.* Dove flying to l. in olive wreath. In field, $A \Xi$. Somewhat worn. Gr. 11.70. PLATE II.

33. Stater. (Same date.) Lion to r. Above, Bow. Beneath, ΣI . *Rev.* Dove flying to r. in olive wreath. In field above, Σ ; below, I. Slightly worn. Gr. 11.80. PLATE II.

6 ALEXANDER HOARDS

AEGINA

- 34-35. Staters. (Milbank,⁴ 404-375 B.C.; Babelon, 480-456 B.C.) Tortoise (*testudo græca*). *Rev.* Incuse square divided into five compartments by thin bands. Tortoise of narrow proportions. Worn. Gr. 11.95. Tortoise of broader proportions. Very good. Gr. 11.94. PLATE II.
36. Stater. (Milbank, 375-350 B.C.; Babelon, 404-348 B.C.) Similar. On the reverse, AI-Γ and dolphin in three of the compartments. Very good. Gr. 11.97. PLATE II.
- 37-38. Drachms. (Milbank, 404-375 B.C.; Babelon, 456-431 B.C.) Similar. *Rev.* Two globules (acorn) in one of the compartments. Worn. Grs. 5.04; 5.52. PLATE II.

ATHENS

- 39-41. Tetradrachms. (Svoronos,⁵ 336-297, 255-229 B.C.; Babelon, 338-229 B.C.) Athena head to r. *Rev.* Owl facing to r. On l., olive sprig. On r., A ⊙ E. Very worn to very good. Grs. 16.79; 16.99; 17.19. PLATE II.

CHALCIS

- 42-44. Drachms. (Babelon, *Traité* II³, 369-313 B.C.) Nymph's head to r. *Rev.* Eagle flying and holding serpent with beak and claws.

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Above, XAA; on r., Caduceus. Somewhat worn. Gr. 3.43 (↑); 3.49 (↑); 3.49 (↘). PLATE II.

45-49. Drachms. Similar but with Π on l. and AAX on r. All very much worn. Grs. 3.30 (↑); 3.37 (↑); 3.38 (↘); 3.40 (↑); 3.45 (↘).

BOEOTIA

Thebes

50. Stater. (Babelon, 379-338 B.C.) Boeotian shield. *Rev.* Amphora between KA-BI. Much worn. Grs. 11.90. PLATE II.

Confederacy

51-52. Hemidrachms. (Babelon, 338-335 B.C.) Boeotian shield. *Rev.* Cantharus between BO-I and crescent. Above, club. Worn. Grs. 2.43; 2.59. PLATE II.

Dionysias or Delium (?)

53. Drachm. (Head, 387-374 B.C.; Babelon, 456-446 B.C.) Boeotian shield of elongated form. *Rev.* Amphora in incuse square. Above, Pellet. On either side, Δ-I. Fine. Gr. 5.70. PLATE II.

OPUNTIAN LOCRIANS

54. Stater. (Babelon, 387-338 B.C.) Head of Persephone to l. *Rev.* ΟΠΟΝ-ΤΙΩΝ.

8 ALEXANDER HOARDS

Ajax Oeleus advancing to r. armed with helmet, sword and shield, the latter adorned with a coiled serpent. At feet, a broken spear. Somewhat worn. Gr. 11.79. PLATE II.

ISSUES OF ALEXANDRINE TYPES

Macedonian Mints

55. Tetradrachm. 3rd Century B.C. Head of young Heracles to r. in lion's skin. *Rev.* ΑΛΕΞΑΝΔΡΟΥ on r. Zeus seated to l. In field, Macedonian Helmet. Beneath throne, ☞. In the exergue, ☞. Müller No. 236. Worn. Gr. 16.97. PLATE II.
56. Tetradrachm. Similar. In field, Crescent and ☞ above ☞. Beneath throne, ☞. Var. Müller No. 919. Very good. Gr. 16.89. PLATE II.

Uncertain Mint

57. Drachm. Similar. In field, Griffin to l. Beneath throne, ☞. Fine. Gr. 4.10. PLATE III.

Asia Minor Mints

58. Drachm. Similar. In field, Lion's Head l. above, B. Beneath throne, Pentalpha. Müller No. 342. Very good. Gr. 3.96. PLATE III.
59. Drachm. Similar. In field, ☞. Beneath throne, Torch. Very good. Var. Müller No. 95. Gr. 4.16. PLATE III.

60. Drachm. Similar. In field, ΑΙ . Beneath throne, Τ . Worn. Gr. 4.15.
61. Drachm. Similar. In field, Forepart of Pegasus to l. Beneath throne, Ν . Müller No. 612. Somewhat worn. Gr. 4.11. PLATE III.

Syrian Mints

62. Tetradrachm. Similar. In field, Α . Müller No. 1375. Very worn. Gr. 16.79.
63. Tetradrachm. Similar. In field, Wreath. Beneath throne, ΒΕ . Müller No. 1545. Very worn. Gr. 16.75. PLATE III.

Babylonian Mint

64. Tetradrachm. Similar. In field, M. Beneath throne, ΛΥ . Müller No. 1272. Worn and with chisel cut. Gr. 16.74.

Persian Mints

65. Tetradrachm. Similar but in name of Philip III. Beneath throne, Ξ . Müller No. 125. Very good. Gr. 16.94. PLATE III.
66. Tetradrachm. Similar but in name of Alexander. In field, Wreath. Beneath throne, Α above Π . Somewhat worn. Gr. 16.88. PLATE III.

Peloponnesian Mints

67. Tetradrachm. Similar. In field, Chimaera to r. Beneath throne, NO. Müller No. 864. Very much worn. Gr. 16.83.

68. Tetradrachm. Similar. Throne-back adorned with victories. In field, Athena Promachos to l. Fine. Gr. 16.65. PLATE III.
69. Tetradrachm. Similar. Same symbol and with EY beneath throne. Müller No. 878. Fine. Gr. 16.82. PLATE III.
70. Tetradrachm. Same obverse die as the preceding. No victories on the throne-back. In field, Bee. Beneath throne, ΠΥ. Very good. Gr. 16.76. PLATE III.
71. Tetradrachm. Same obverse die as the preceding. In field, Biga to l. above A. Beneath throne, Ξ. Very good. Gr. 16.75. PLATE III.
72. Tetradrachm. Similar but of later style. Victories on throne-back. Athene Promachos in field. Beneath throne, F. Good. Gr. 16.76. PLATE IV.
73. Tetradrachm. Similar but of better style. In field, Star. Müller No. 898. Very fine. Gr. 17.07. PLATE IV.
74. Tetradrachm. Similar. No victories on the throne-back. In field, ~~Π~~ in wreath. Fine. Gr. 16.78. PLATE IV.
75. Tetradrachm. Similar but of poorer style. In field, Thunderbolt. Beneath throne, ΠΥ. Good. Gr. 16.62. PLATE IV.

THE OLYMPIA HOARD 11

KINGDOM OF THRACE

Lysimachus. 321–281 B.C.

76. Tetradrachm. Head of Alexander the Great, with Ammon's horn, to r. *Rev.* ΒΑΣΙΛΕΩΣ on r., ΛΥΣΙΜΑΧΟΥ on l. Athene seated to l. holding a victory in her outstretched r. In l. field, Aphlaston. Beneath Athena's arm, Π. Müller No. 356. Good. Gr. 16.99. PLATE IV.

KINGS OF EGYPT

Ptolemy I (or Ptolemy II). 321–286 B.C.

Mint: Alexandria

77. Tetradrachm. Diademed head of Ptolemy I to r. *Rev.* ΠΤΟΛΕΜΑΙΟΥ on l. ΒΑΣΙΛΕΩΣ on r. Eagle standing to l. on thunderbolt. In field, ΕΥ above Κ/Ε. Svoronos No. 358. Very worn. Gr. 14.07.
78. Tetradrachm. Similar but in field, ΕΥ above ΚΑ, above Α. Svoronos No. 376. Both obverse and reverse are covered with numerous more or less indistinct punch-marks. Very worn. Gr. 14.03.

Ptolemy II. 286–245 B.C.

Mint: Alexandria (?)

79. Tetradrachm. Similar. In l. field, Τ above ΜΝ. In r. field, Oblong Shield. Svoronos No. 529. Several punch-marks (among them

12 ALEXANDER HOARDS

an anchor) on obverse and reverse. Very fine. Gr. 14.02. PLATE IV.

Mint: Tyre

80. Tetradrachm. Similar. In l. field, ☞ above Club. Svoronos No. 644. Worn. Gr. 14.17.

81. Tetradrachm. Similar. In l. field, H above Club. Svoronos No. 637. On the obverse is the counterstamp of Byzantium, **ΒΑΥ**. In addition there are numerous small and indistinct punch-marks on obverse and reverse. Worn. Gr. 13.95. PLATE IV.

Mint: Gaza

82. Tetradrachm. Similar, but with ΣΩΤΗΡΟΣ (Instead of Βασιλέως). In l. field, **Α** above **Α**. In r. field **ΑΒ** above **Α**. Dated "year 32" = 254/3 B.C. Svoronos No. 829. Very good. Gr. 14.01. PLATE IV.

ELIS

Even a superficial perusal of the contents of the hoard described in the preceding catalogue makes it obvious that the Elean group presents a more continuous and more complete series of issues than does any one of the other groups. Actually, the oldest⁶ piece in the find is No. 1, assigned by Mr. Seltman to the Hera mint at Olympia and attributed by him to the years 421–385 B.C. Babelon further restricts the

date, i.e., from 421 to 402 B.C., while Gardner in the British Museum Catalogue, *Peloponnesus*, assigns similar pieces to the years 421–370 B.C. As might be expected, this particular piece is by far the most worn coin in the hoard, the natural result of over a century and a half's circulation. Almost equally badly worn is the hemidrachm No. 2, which Mr. Seltman assigns to the years 421–365 B.C., with a reservation expressed in the foot-note No. 2, p. 54, that the coin might have been issued at a slightly later date. Babelon, however, assigns to it the date 431–421 B.C., while Gardner in the British Museum Catalogue is very cautious with his wide margin of from 471–370 B.C.⁷

Mr. Seltman's two succeeding periods, 363–343 B.C. ("Zeus Mint," Group G, Series XX) and 363–323 B.C. ("Hera Mint," Group GH¹, Series XXIX and XXX), are here represented by two staters each. These pieces exhibit varying degrees of circulation. In the main, Babelon's dates agree with those of Mr. Seltman, though he is probably too conservative in placing our Nos. 3 and 4 as late as 323–300 B.C. The obverse dies from which these four staters were struck are all known to Mr. Seltman, but the reverse dies of Nos. 3 and 4 are not represented in his work. They, however, tell us nothing new except to increase still further for Elis the preponderance of reverse over obverse dies usually found in ancient mints. The reverse die $\epsilon\gamma$ of our No. 5 is known to Mr. Seltman but its use in conjunction with his obverse die EZ

has not yet been recorded. The die is known to him only in use with his obverse die EX.

Mr. Seltman's Group J (323-271 B.C.) is represented by only the seven hemidrachms of debased weight, Nos. 8-14, all in a more or less worn condition. If, however, our hoard is not complete as it lies before us, specimens of the accompanying staters may well have been present originally. His Group K (273-191 B.C.) is represented by one stater in good condition and by ten hemidrachms in very fine condition. This very noticeable divergence in the several states of preservation would seem to suggest that the stater came at the outset of the issue (where, indeed, Mr. Seltman has placed it), while the hemidrachms appeared towards the close. Furthermore, to judge by the decidedly better preservation of the hemidrachms Nos. 19 to 25 (bearing on their reverses a wreath with small, evenly placed leaves) over the hemidrachms Nos. 15 to 18 (bearing a wreath with large leaves) it would seem probable that the issue of the latter preceded that of the former. The slightly better, less machine-like style of the latter also supports this suggestion.

Equally, or even better preserved are the six hemistaters (or drachms of debased Aeginetan weight) Nos. 26 to 31. Although their surfaces are somewhat corroded it is obvious that the coins themselves must have been in a truly brilliant state of preservation at the time our little treasure was buried. Mr. Seltman places their date, for insufficient reasons it seems to

the present writer, after 191 B.C. when the Eleans had finally been forced to join the Achaean League. In that same year the issue of triobols, bearing the regular federal types, was doubtless commenced at Elis to conform with the procedure of her fellow members in the League.⁸ The coinage of a larger denomination, but one bearing local types, may at Elis have accompanied the issue of the regular federal triobols. On the other hand, it has not yet been proved⁹ that the Achaean League ever permitted its members to coin larger denominations—and these of local types—to run concurrently with the federal triobols which they all issued as members of the League.

It is curious that all the hemistaters in our hoard should be of one type only. Not a single example of the similar—and equally common—types (Seltman, Plate VIII, Nos. 33 and 34) seem to have been present. Far more significant is the fact that the hoard apparently contained not even a single specimen of the very common Achaean League triobols issued from the mint at Elis from 191 B.C. on. Even accepting the possibility that our lot may not comprise the entire hoard as originally found, if there had been any present at all, a few would surely have been found mingled with Nos. 15–25,—coins of a somewhat similar appearance. There is no obvious reason why these common little Achaean triobols of Elis should have been so completely removed from the parcel before the coins were offered for sale. We can only

conclude that the hoard itself must have been buried not later than about 191 B.C. From the evidence before us it would seem probable that the hemidrachms Nos. 19 to 25 and the drachms Nos. 26 to 31 were practically contemporaneous issues and that they were all struck previous to 191 B.C.¹⁰ They were doubtless intended to circulate conjointly or in competition with the triobols of the Achaean League which by this time had appeared in enormous quantities and were flooding the Peloponnesian markets.

SICYON

By an odd chance, particularly pleasing to a collector, one of the only two Sicyonian staters contained in the find, as we have it, happened to be a specimen of the exceedingly rare variety in which a prowling lion replaces the usual chimaera. Apparently only four other specimens of this very scarce type have so far been recorded. One specimen is in M. Jameson's collection in Paris, another is published by Babelon in his *Traité* II³, No. 798, from the Pozzi Collection, while two more (considerably corroded) occurred in the great find of Myron-Karditsa in Thessaly.¹¹

AEGINA

Aegina is represented by three staters and two hemistaters, or Aeginetan drachms. For their dates the writer has followed Mr. Milbank's useful monograph on the coins of Aegina, as he offers a far more acceptable dating of the Aeginetan issues than can

be found in Babelon's works or the British Museum Catalogue. At least Mr. Milbank's dates (based on the preceding studies of Earle Fox in the *Corolla Numismatica*) are more in consonance with certain indications presented by some recent hoards.¹² Not only are Nos. 34–35 in surprisingly good condition for coins which are usually assigned to the fifth century, but the very presence and the exceptionally fine condition of No. 36 is significant in view of remarks made by the present writer in connection with the Aeginetan coins contained in the Andritsaena Hoard.¹³ It seems highly probable that these inscribed issues of Aegina are more recent than has usually been believed.

ATHENS

The Athenian tetradrachms of the Olympia Hoard are all specimens of late issues, assigned by Head to 397–322 B.C. but brought down by Babelon and Svoronos well into the third century B.C.

CHALCIS

It is interesting to note that, alone of all the earlier issues of Greece proper, these Chalcidian drachms are struck from adjusted dies.¹⁴ As every specimen contained in our hoard exhibits signs of considerable circulation, especially Nos. 45–49, the accepted dating of these pieces in the last half of the fourth century is probably correct. The seemingly total absence from the hoard of the late and very common tetrobols (?)

of Histiaea supports Head's assignment¹⁵ of these pieces to the period 197–146 B.C., as against the earlier attribution (followed by Babelon in his *Traité*) to the period commencing with 313 B.C.

BOEOTIA

While the dates of Nos. 50–52 are certain and are confirmed by the state of wear exhibited by the specimens in our hoard, the date and even the attribution of No. 53 is still very much open to question. In spite of Imhoof-Blumer's well-reasoned doubts,¹⁶ Babelon still clings to the old attribution of this and similar pieces to the quite unknown Dionysias, or to the unimportant Delium in Boeotia—although in doing so he has to admit a local dialectical variation which Imhoof-Blumer showed to be impossible or, at least, highly improbable. Head¹⁷ follows Imhoof-Blumer and sees in the letters Δ-I the initials of some magistrate. His dating of these coins to the period 387–374 B.C. is far preferable to the fifth century date advocated by both Imhoof-Blumer and Babelon. Head is most certainly right in calling attention to the rather late style and fabric of these particular pieces. The fine condition of the coin in the present hoard would seem to suggest the possibility that in this regard he did not go far enough. Too much weight, of course, must not be placed upon the appearance of a single specimen in fine condition in one small hoard, but a straw may serve to show which way the wind is blowing. There may also be some

significance in the fact that no specimens of this type occurred in the large Myron-Karditsa Hoard, buried late in the fourth century B.C.

ALEXANDRINE ISSUES

The Alexandrine tetradrachms and drachms of the Olympia Hoard constitute a noticeably wide range of mints and issues. As is the case with similar Peloponnesian hoards, the coins from Asiatic mints are proportionately numerous (nine out of twenty-one specimens). But unlike the late fourth or early third century deposits so far published, the Macedonian mints are not well represented. As might have been expected Peloponnesian issues are fairly numerous, exactly equalling, in the present case, the issues of Asiatic mints. Curiously enough this fact appears to be unusual for, with the exception of the Patras Hoard,¹⁸ Peloponnesian "Alexanders" are usually noticeably rare even in hoards unearthed in that very district.¹⁹

Of the nine Peloponnesian varieties contained in our find, no less than six are unpublished, showing in how incomplete a manner the Peloponnesian Alexander series has come down to us. For this reason, and because the material actually presented by our hoard is too small, it will not be desirable to discuss them at length on this occasion. In passing, however, attention should be called to Nos. 69–71. The first of these was assigned by Müller (his No. 878) to a mint at Sicyon, while more recently Svoronos²⁰

saw in it, because of its Athene Promachos symbol, an issue of Demetrius Poliorcetes. Following this line of thought, however, the coin might with even greater plausibility be given to Pyrrhus. That neither of these suggestions can be considered correct is shown by the fact that Nos. 69, 70, and 71 (possessing the strikingly varied symbols, Athene Promachos, Bee, and Biga) are all struck from the same obverse die. By no stretch of the imagination can we assign all three of these varieties to either Demetrius or Pyrrhus. Their combined indications of style also point to well after 275 B.C. More probably, then, the coins in question represent some civic issue—whether of Sicyon or of Argos our hoard hardly presents sufficient data for determining. With the exception of No. 67, whose early style and very worn condition point to the fourth century, the remaining Peloponnesian “Alexanders” in our find are evidently of the third century B.C. It is curious to note the use of the *digamma* as a magistrate’s initial (on No. 72) at so late a period. In fact, from its style and fabric, this particular coin would appear to be about the latest of the “Alexanders” in the Olympia Hoard, which, however, contained not a single example of the very broad, spread type of the second century B.C.

THE PTOLEMIES

Passing by the single Lysimachean tetradrachm (No. 76), which can teach us little, we turn to the final category in the Olympia Hoard, the Ptolemaic

tetradrachms. Here we find the mints of Alexandria, Tyre and Gaza represented. The presence of such coins is absolutely typical of third century Peloponnesian hoards and well illustrates the very great influence exercised by the first three princes of the Lagid dynasty on the political and economic history of that district.

The best preserved of these tetradrachms is the issue for Gaza, No. 82. This coin offers the surest date, *post quem*, for the burial of our hoard, for it is carefully dated in the thirty-second year of the reign of Ptolemy II Philadelphus, or 254–253 B.C. The coin is slightly worn, and so must have seen a few years' circulation before it was interred with its various companions. Similar evidence is presented by No. 81, a specimen of that large category of Ptolemaic tetradrachms which bear the counterstamp of the city of Byzantium. These coins have been discussed by Svoronos²¹ who gives reason for believing that these counterstamps were applied to certain large donations of coin presented to Byzantium by Ptolemy II in and around the year 252 B.C.

THE DATE OF BURIAL

In the light of the very definite evidence offered by the Ptolemaic tetradrachms, the Olympia Hoard could not have been buried before *circa* 250 B.C. On the other hand, it may well have been in the ground by 225 B.C., certainly by 200 B.C., as indicated in a general way by the other coins from the find.

The total absence of any issues of the third Ptolemy seems to speak for an early date. Even the latest of the Peloponnesian "Alexanders" are still of the style and fabric customarily associated with the middle of the third century B.C. As stated above, pieces of the late spread fabric, appearing towards the end of this century, are conspicuous by their absence. The large numbers of autonomous issues in quite good condition in the find, dating from the end of the fourth or beginning of the third century (i.e. staters of Elis, Sicyon, Aegina, Locri, also small denominations of Chalcis and Boeotia, not to mention Elis), all indicate a burial not later than about 225 B.C. at the very latest. In support of this is the total absence of the very common Athenian tetradrachms of the "New Style," first issued in 229 B.C. Even the immediately preceding issue of thick tetradrachms bearing symbols²² is unrepresented. It is also interesting to note that the only Peloponnesian issues (except those of Elis itself) in the hoard are represented by coins of Sicyon, and that these comprise none of the very common series characterized by the large *Sigma* as the reverse type. This issue is usually assigned to the period 251-146 B.C.

If we were to accept Mr. Seltman's proposed assignment of the Elean drachms Nos. 26-31 to a period after 191 B.C. we should find ourselves under the necessity of placing the burial of our hoard after that date. But neither the style of the drachms in question nor the remaining coins in the present

hoard appear to support his theory, and as he gives us no definite proof for his dating beyond his stated belief that these drachms were issued to accompany the Achaean League triobols of Elean mintage, we may be pardoned for not accepting Mr. Seltman's dating in this particular instance. The most probable date of burial would therefore seem to lie somewhere between the years 250 and 225 B.C.

There is little in the known history of the Elean district during the period in question to guide us in finding a very definite political reason²³ for the burial of our hoard. Since 266 B.C. the people of Elis had maintained a close bond with their powerful and much feared kinsmen to the north, the Aetolians. The latter thereby secured in the south an ideal base of operations for their numerous piratical raids and expeditions. Thus Elis, protected by her isolated position and especially by her alliance with the Aetolian League, remained more or less aloof from the constant strife which in the last half of the third century B.C. tore the remainder of the Peloponnesus. In 240-239 B.C., the Aetolians made use of their position to invade Laconia, marching by way of Elis and Megalopolis.²⁴ In so doing their route necessarily led through or close to Olympia. Now a careful householder might well have distrusted (and this probably was not the first instance) the rough and plunder-loving Aetolian soldiery, even though they were allies, and so, previous to their passage, have consigned his savings to the ground. But this would

not explain why he never recovered the coins, unless we were to go a step further and suppose him to have perished in a brawl with this selfsame soldiery. But such conjectures are far from satisfactory.

Again we hear of a plundering sea raid upon the coasts of Elis carried out by the wild Illyrians in 231 B.C. But this attack obviously did not penetrate far inland and so would hardly induce a citizen of Olympia to bury his belongings. With more probability may the burial of our hoard be connected with the invasion of southern Elis by Aratus and his Achaean army in 227 B.C. The details of that expedition, so far as Olympia or the district of Elis is concerned, have unfortunately not been vouchsafed us by our sources.²⁵ All that we learn is that on his return Aratus was disastrously defeated near Mt. Lycaeus in the territory of Megalopolis. But, from the nature of things, Olympia must have been directly threatened if not actually seized. In any case, here we may have a possible and immediate reason for the burial of the Olympia Hoard. Furthermore, Aratus' invasion falls within two years of the lowest date (*circa* 225 B.C.) which had tentatively been suggested above for the burial, and that date was based only upon the actual contents of the hoard itself. In conservatively fixing the upper and lower limits for the burial as *circa* 235–225 B.C. we shall probably not be greatly in error. But in view of the uncertainty as to whether we have the entire hoard before us or not, it would be most unwise to hazard a closer dating than the one just suggested.

NOTES

¹ Perhaps to increase the chance of sale, the importer added the somewhat gratuitous "information" that the coins had actually been found in company with the now famous gold bowl of the sons of Cypselus in the Boston Museum of Fine Arts! Parenthetically it may be said that it was this same Greek importer who was instrumental in selling that bowl to the Boston Museum.

² Since this time numerous small parcels of coins from recent finds in the Peloponnesus have been examined. But these hoards appear to be distinctly earlier than the one under discussion (they comprised some early Aeginetan staters mixed with Boeotian staters of the period before 338 B.C., together with an early stater of Thera; and another hoard of Sicyonian staters in very fine condition) and most important, none possessed the very individual outward characteristics of corrosion, etc., peculiar to our lot. They could hardly, therefore, have come from this find.

³ For the bibliography of these hoards see S. P. Noe, *A Bibliography of Greek Coin Hoards*, Numismatic Notes and Monographs, No. 25.

⁴ S. R. Milbank, *The Coinage of Ægina*. Numismatic Notes and Monographs, No. 24, 1925.

⁵ J. N. Svoronos, *Les monnaies d'Athènes*, pl. 20, nos. 2-37; pl. 23, nos. 7-8.

⁶ The writer feels convinced that Babelon is mistaken in his early dating of the Aeginetan pieces Nos. 34-35 and 37-38. Mr. Milbank's dating (following the article by Earle Fox in the *Corolla Numismatica*, pp. 34-46) is far more acceptable. The same is true of the Boeotian coin No. 53, see p. 18.

⁷ Gardner in his monograph on *The Coins of Elis* (Num. Chron., 1879, pp. 240–246) gives the date 400–365 B.C. for this coin.

⁸ The coinage of these, apparently the most extensive of all the League's many issues, must be compressed into the space of time represented by 191 B.C., when Elis finally joined the League, and 146 B.C. when Mummius put an end to the League's existence and therefore to its coinage.

⁹ But cf. Sir Charles Oman's article in the *Numismatic Chronicle*, 1926, pp. 20–35. It seems to the present writer that Prof. Oman places some, if not all, of his Corinthian staters too late. It should be noted that the Hunterian variety (plate XXXVI, 17) of his pl. IV, 18, bears an unmistakable *oak* wreath on Athena's helmet. Hence this coin might more naturally fall in the age of Pyrrhus than in 243–223 B.C. where Oman places it.

¹⁰ This date is also in accord with Gardner's view.

¹¹ J. N. Svoronos, *Arch. Dellion*, Vol. II, pp. 273–335.

¹² E.g. The Myron-Karditsa Hoard mentioned above and the Andritsaena Hoard.

¹³ *Numismatic Notes and Monographs*, No. 21, pp. 31–33 and 36–37.

¹⁴ E. T. Newell, *The Coinages of Demetrius Poliorcetes*, pp. 140–142.

¹⁵ *Historia Numorum*,² p. 364.

¹⁶ *Numismatische Zeitschrift*, III, pp. 326–334; IX, 15–16.

¹⁷ *Chronological Sequence of the Coinage of Boeotia*, 1881, pp. 57–60.

¹⁸ *Numismatic Chronicle*, XVI, 1853.

¹⁹ For the bibliography of the Kyparissia, Andritsaena, Sparta, Sophikon, Epidaurus, etc., Finds, cf. A Bibliography of Greek Coin Hoards by S. P. Noe, in *Numismatic Notes and Monographs*, No. 25.

²⁰ *Jour. Int. d'arch. num.*

²¹ *Tà Nomismata* etc., I, pp. σις'-σις', IV, 141.

²² Svoronos, *Les Monnaies d'Athènes*, Pl. 23, Nos. 20-24, and accompanying drachms, Nos. 25-42.

²³ The personal reasons which might conceivably have actuated the former owner to consign his savings to the ground are well-nigh legion, such as robber's loot, the fear of robbers, the desire to keep the hoard out of the hands of rapacious creditors or even relatives, etc., etc.

²⁴ Polybius, IV, 34, 9. Plutarch, Cleomenes, 18. Niese, *Geschichte der griechischen und makedonischen Staaten*, II, 262.

²⁵ Plutarch, Aratus, 36, Cleomenes, 5; Polybius, II, 51, 3; Niese, *loc. cit.*, II, 310, note. 1.



OLYMPIA H'D



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—4—



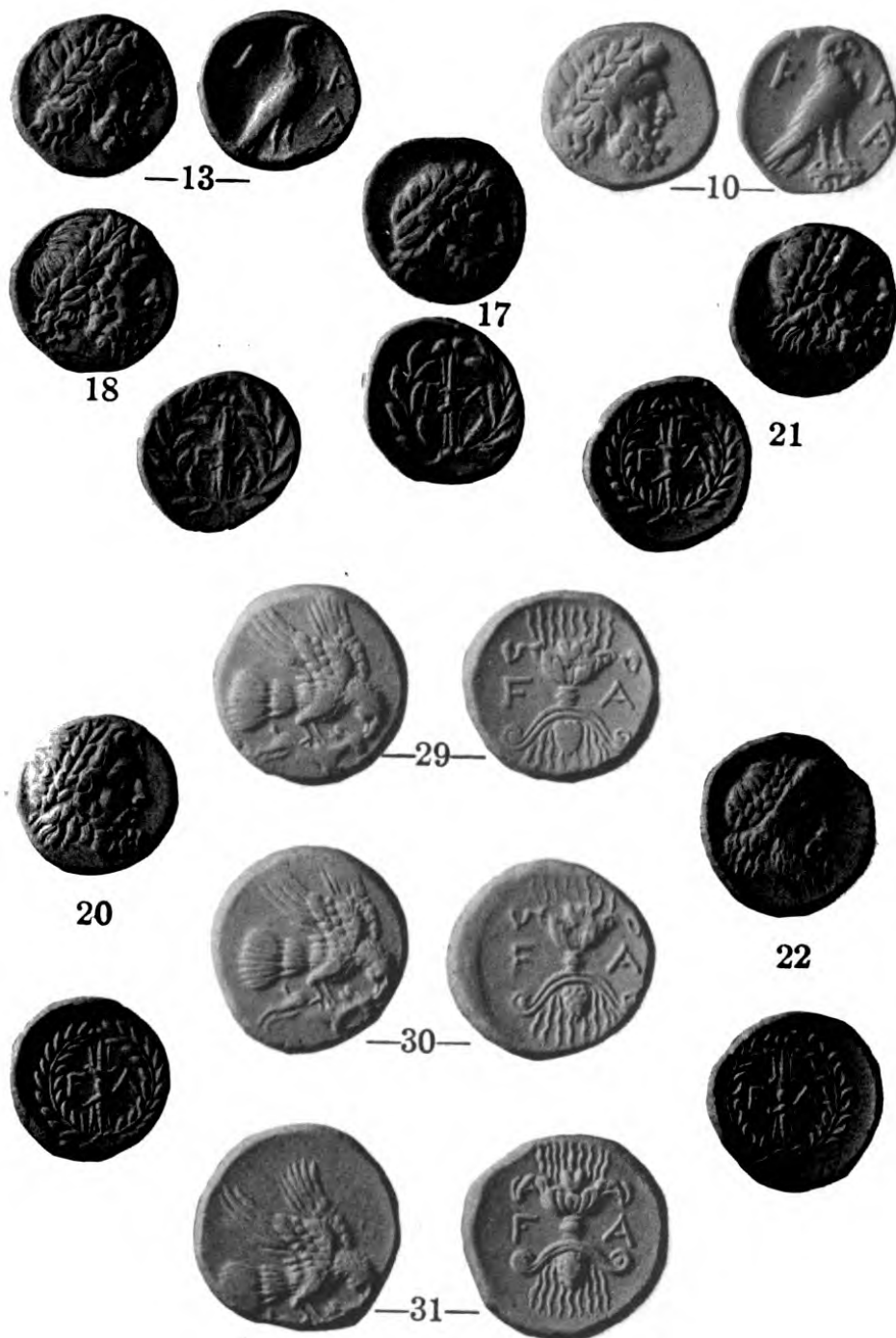
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—6—

Plate I





OLYMPIA H'D



33



41



32



—35—



42



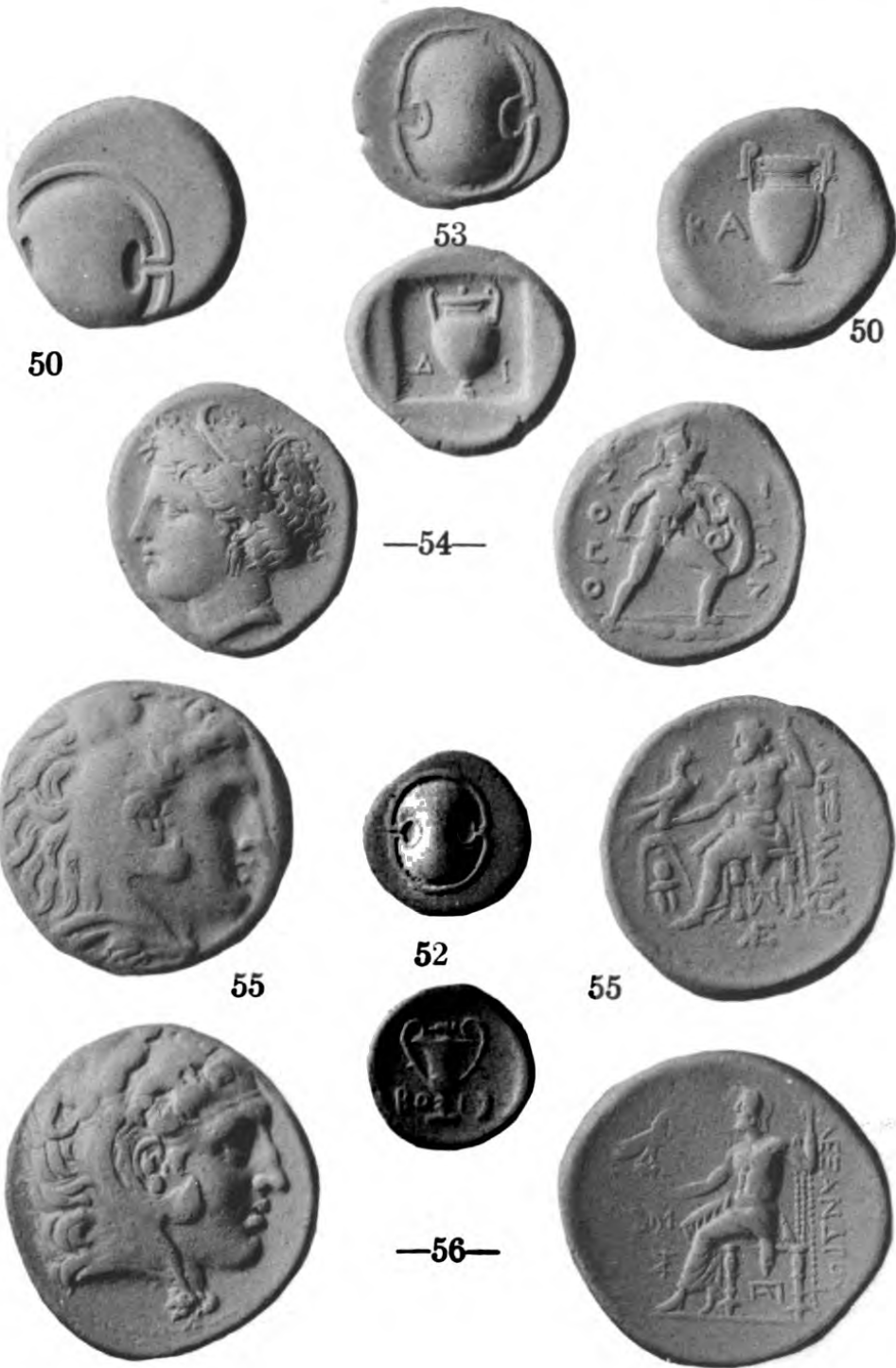
37



—36—



Plate II





OLYMPIA H'D

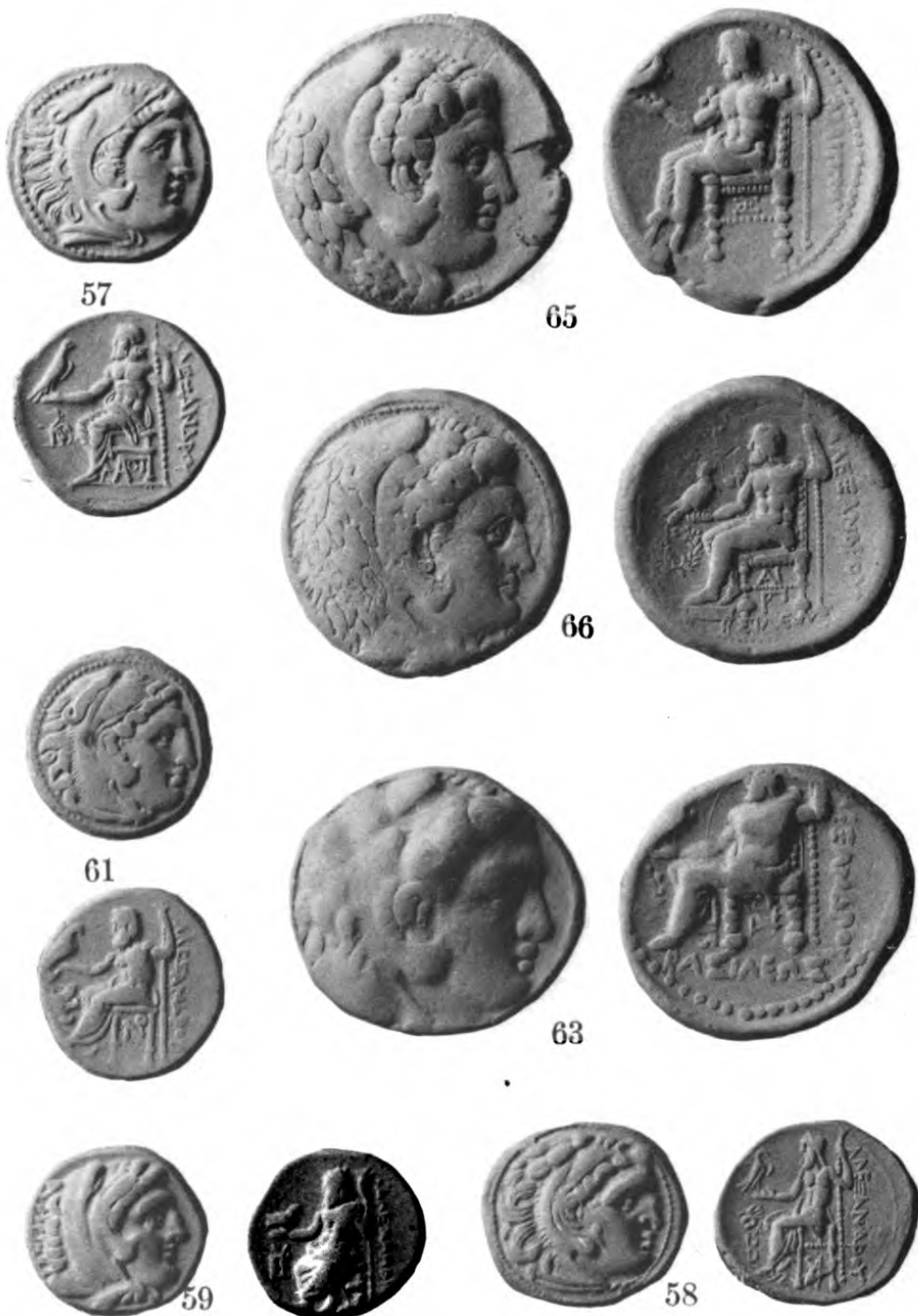


Plate III



—68—



—69—



—70—



—71—



OLYMPIA H'D



—75—



—72—



74



73



73



Plate IV



76



79



81



82



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35
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NUMISMATIC NOTES
AND MONOGRAPHS

No. 40



FIFTH AND FOURTH CENTURY
GOLD COINS FROM THE
THRACIAN COAST

BY
ALLEN B. WEST

THE AMERICAN NUMISMATIC SOCIETY
BROADWAY AT 156TH STREET
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FIFTH AND FOURTH CENTURY GOLD COINS FROM THE THRACIAN COAST

BY ALLEN B. WEST

Towards the end of the fifth century several widely-separated Greek cities were forced by financial difficulties to mint gold coins.¹ Of these, the coins of Athens are famous, and it has been assumed that they served as a model for the gold coins struck about that time by the cities on the Thracian coast.² There is much to be said for this view. Athenian currency had been increasingly dominant on the shores of the Aegean for many years. The cities from which these coins come were members of the Athenian Empire, one of them, Aenus, particularly loyal as late as the Sicilian expedition.³ The coins, themselves, resemble the Athenian issue of 406 in that they are of small denominations—only one, not known to Gardner,⁴ being larger than an Attic drachm. As divisions of the daric are unknown,⁵ it has been taken for granted that the

¹ Gardner, *Anc. Coinage*, 292; Head, *Hist. Num.*,² xliii; Pl. I of this monograph.

² Gardner, *op. cit.*, 327-330.

³ Thuc., vii. 57.

⁴ Jameson Coll. III, 1941.

⁵ Gardner, *op. cit.*, 88. It is possible that we should look to the abundant electrum coinage of cities like Cyzicus for a precedent for the striking of small gold coins. Electrum was considered a kind of gold, and the hectae of electrum were well known.

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Thracian cities were following the example of Athens, not of Persia. Lastly, it has been assumed that during the fourth century the Attic standard began to be used for gold in competition with the Persian daric and that, to a certain degree at least, many cities modelled their gold coinage on Athenian issues dated by Gardner in the period after 394.¹

My purpose is to show that the foregoing hypothesis overemphasizes the influence of Athens during the last years of the Peloponnesian War. What may have been true of the Greek world after the revival of the Athenian naval power in the first decade of the fourth century can not be taken for granted in the last years of the fifth, when the Athenian Empire was disintegrating.² It must be remembered, too, that the Athenian gold coins of 406 were struck to supply the need of a moment—money of necessity, as they have been called. The issue was discontinued when the need passed. Obviously these coins would not be widely current, and it is doubtful whether they would be sufficiently well known to suggest the minting of gold coins on the same standard. The Persian daric was much more common and therefore a better model, especially for cities that had broken with Athens and

¹ Gardner, *op. cit.*, 295, 330 ff., 337.

² Nor has it been proved for the fourth century. In the first place, it is doubtful whether the second issue of Athenian gold dates before 339, and secondly, the coins of Asia Minor cited by Professor Gardner as of Attic weight do not seem to bear out his assumption.

were changing their coinage to suit the increasing volume of trade with Asia Minor.

But a study of the political, commercial, and numismatic relations of the cities of the Thracian coast will show that hasty generalizations are unsafe and that no one formula will explain the weights of the handful of coins we have to study. Thus it will be necessary to consider each city and even each coin separately. There are a number of questions that we must try to answer: whether or not the coins were minted after 406; on what standard they were struck; whether the city of issue would have been likely to follow the example of Athens or to adopt the Attic standard; whether there was any attempt to regulate the weight of the gold in accordance with its value in terms of silver; and whether the gold was minted on a standard different from that in local use for silver.

In general, a city minting its first gold, unless it is aiming at a bimetallic system, will either use its silver standard or will adopt a standard in use for gold elsewhere, preferably the one with which it is most familiar. In the fifth century, of course, the daric was the only gold coin with large circulation, even after 406 when Athens first minted small gold coins. If the city of issue is trying to establish a bimetallic system, then the weight of the coin is determined by two factors, the weight of its silver coins and the prevalent ratio between the two metals. Now if it could be proved that the weight

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of this Thracian gold were due to a striving for bi-metallism,¹ especially on the basis of a gold-silver ratio of $13\frac{1}{3}:1$, we should be forced to admit that Persian or Asiatic influence was more important than Athenian, for only within the Persian empire was there a well known and widely spread bi-metallic currency.

Politically Thrace and the Thracian coast after 413 were filled with unrest. Two empires were on the point of disintegration, the empire built up by the Odrysian prince Sitalces shortly before the Peloponnesian War and increased by Seuthes after the death of Sitalces in 424, and the Athenian empire which had suffered in prestige through its defeat in Sicily. It is difficult to trace the part played by individual Greek cities in the destruction of these two powers, but it may be taken for granted that the Greeks of the coast did not remain idle spectators of events that touched very closely their own fortunes.

The Odrysian empire had affected the prosperity of the Greek cities of the coast adversely, as can be seen from a study of the Attic quota lists and from the coinage of places like Abdera and Aenus.²

¹ Cf. Head, *Hist. Num.*,² xlii ff. It should be noted that Head tries to account for the weight of the silver coins by assuming a gradual fall in the price of gold. This is quite different from saying that a city minting subsidiary gold coins would so adjust their weight that they would exchange for a round number of silver coins.

² For the relations between the Odrysae and the Greeks, see Thuc., ii. 96-98; iv. 101; Diod., xii. 50; Höck, *Hermes*, xxvi. 76 ff.,

Thus the Greeks had a very real interest in the affairs of the hinterland, and we cannot doubt that they participated in the dynastic struggles to which the destruction of the Odrysian empire was due.¹ The destruction of their common enemy, an enemy that had formed an alliance with Athens, left them with a feeling of security and resentment. They were resentful that Athens had done nothing to secure their prosperity and at the same time convinced that Athens could do little to harm them if they seized an opportune moment to revolt.

Thus the disintegration of the one empire increased the chafing at the other. In the years after 411, sometimes the partisans of Athens, backed by the might of Athens, were in power, while at other times the anti-Athenian party with the help of a Peloponnesian fleet was able to throw off the Athenian yoke. The details of these revolutions and counter-revolutions are unfortunately almost entirely unknown, for only here and there do we find casual reference to affairs Thraceward. Still, we must begin our study of Thracian gold coins with a brief survey of this little-known chapter in the history of the decline of the Athenian empire.

The years 412 and 411 were inglorious for Athens. Beginning with the revolt of Chios in 412, a revolt

453 ff.; Meyer, *G. d. A.*, IV. 73 ff.; Strack, *Ant. Münzen Nord-Griechenlands*, II, 1, *Thrakien*, 10 ff., 41, 132 ff.; Schoch, *Pauly-Wissowa*, s. v. *Sitalkes*.

¹ For further discussion, see *infra* on Maroneia and Aenus.

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that aroused an intense feeling of rage and despair in Athens, city after city and island after island rose in rebellion. From the Hellespontine province in which the revolt was almost complete by the summer of 411,¹ it spread most naturally to the coast of Thrace, where, in the autumn, Thasos, one of the wealthiest of Athenian subjects, rebelled.² About the same time Abdera, an important commercial city, followed the example of her neighbors.³ Neapolis, on the mainland opposite Thasos, remained loyal,⁴ but how many other cities stood by Athens we do not know. It is probable that with Thasos active and with a force of Peloponnesians coöperating with her,⁵ most of the Thracian coast was in open rebellion in 411-10 and that

¹ Thuc., viii. 80; Diod., xiii. 40; cf. Beloch, *Gr. Gesch.*, II,² 1, 389.

² Thuc., viii. 64; Hell. Oxyr., ii. 4.

³ Diod., xiii. 72, tells of the reconquest of Abdera in 408-7. It probably had revolted in 411.

⁴ The coinage of Neapolis is significant of the trend of the times away from the Attic standard. Although it remained loyal to Athens in the struggle against Thasos, it was striking coins of either Abderite or Chian weight, Gardner, *Anc. Coinage*, 273 f. If loyal subjects found it inconvenient to use the Attic standard, how much more likely that others should not adopt it even for gold.

⁵ Dittenberger, *Syll.*,³ 107 (*I. G.* I², 108), is our chief source of information. For the history of Thasos, see also Jacobs, *Thasiaca*, Berlin, 1893; Foucart, *Rev. d. Phil.*, 1903, pp. 215 ff.; Jacobs, *Ath. Mill.*, 1897, 124 ff.; Artner, *Jahresberichte d. k. k. Theres. Ak. in Wien*, 1913, pp. 15 ff.; Wilhelm, *Ath. Mill.* XXVIII (1903), *Inscript aus Thasos*, 437 ff.; *Eranos Vindobonensis*, 1893, pp. 241-252; Hicks, *J. H. S.*, 1887, 401 ff.; Judeich, *Kleinasiatische Studien*, 81 ff.; Friedrich, *I. G.*, XII, 8, pp. 75-79.

Athenian fortunes were at a low ebb.¹ Athens was more fortunate in 410, for toward the end of the year the danger to Neapolis was removed. Oenobius had succeeded in raising the siege of Neapolis, and Thrasybulus with a fleet was trying to collect money from the none too loyal cities of the region.² Although the chronology of the next two years is under dispute, Agesandridas apparently remained on the Thracian coast for much of this time.³ Then in 408–7 Thrasybulus put in a second appearance and reduced Abdera and Thasos to their previous position of subjection to Athens.⁴ To ensure the obedience of Thasos an Athenian garrison remained there. After this we know nothing of affairs Thraceward until after the battle of Aegospotami, when Eteonicus with a small force of ten ships completed the destruction of the Athenian empire.⁵ In this interval Athens issued the gold coins which served as models, so it has been assumed, for the Thracian gold (Pl. I, I to K).

The occasion for this issue was a serious defeat for Athens at Notion in the spring of 406.⁶ The

¹ For conditions on the Thracian coast after 411, cf. Xen. *Hell.*, i. 3, 17; Busolt, *Gr. Gesch.* III, 2, 1552; *Ath. Mitt.*, 1890, pp. 72 ff.

² Dittenberger, *Syll.*³, 107; Diod., XIII, 49.

³ Xen., *Hell.*, i. 3, 17; cf. Beloch, *Gr. Gesch.*, II², 1, 394, note 1.

⁴ Xen., *Hell.*, i. 4, 9; Diod., xiii. 72; Dittenberger, *Syll.*³, 107; Beloch, *Gr. Gesch.*, II², 1, 401.

⁵ Xen., *Hell.*, ii. 2, 1–6; Plutarch, *Lysander*, 13; Diod., xiii. 106.

⁶ Aristophanes, *Frogs*, 720 ff., and scholiast; Gardner, *Anc. Coinage*, 291. See particularly Koehler, *Z. f. Num.*, 1898, 5 ff., *Alt. Goldprägung*.

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coins, struck at the very end of the calendar year 407-6, could not have appeared in any great quantities on the coast of Thrace in the fifteen months before the final ruin of Athenian prestige at Aegospotami in the late summer or early autumn of 405. It seems hardly likely that four cities, one of them Amphipolis, openly hostile to Athens since the time of Brasidas, another, Thasos, recently in rebellion and restrained by a garrison, would have been imitating Athens and adopting her standard for gold during these uncertain years when no one knew how soon Athenian influence would disappear from the Aegean. Nor is it likely that Athens would permit a city like Thasos to lay up treasures of gold that might be used against her authority. The issue of gold coins was frequently a war measure. With Thasos garrisoned, such minting of gold could be prevented. With the garrison withdrawn, there would be practically no incentive for Thasos to follow in the wake of Athens. If the gold was issued in these few months, it was doubtless intended for use against Athens.

The numismatic history of this period is almost as confused as the political. This much is clear: nowhere was the Attic standard superseding other standards on the Thracian coast. Standards appear and disappear in the various cities almost inexplicably, but from the extant silver coins we should never suspect that the Attic standard had once been

dominant there or that Athens retained any political influence Thraceward.¹

From the coins too it seems to be clear that the commercial connections of this coast were changing to the advantage of cities on or near the Straits.² On all sides the ties binding the Thracian coast to Athens were being broken, and it is difficult to believe that in minting gold the Thracian cities should have gone contrary to the general trend of the times. Thus it seems to me that the burden of proof is with those who claim the Attic gold of 406 as the model for the gold coins of Amphipolis, Thasos, Maroneia, and Aenus.

I am not sure whether Professor Gardner adduces the weights of their coins as proof that these cities were imitating Athens, or whether he has assumed that the coins are of Attic weight because of his conviction that the Athenian coins of 406 served as their models. In any case it will be necessary to see how far the weight of the extant coins bear out his hypothesis.³

He describes six varieties together,⁴ to which we can add two not known to him.

¹ Gardner, *Anc. Coinage*, 271-281, 322 f. The coins of the Odrysian princes, Sparadocus and Seuthes, and those of Abdera and Maroneia are the last that show any indications of being influenced by Athens. Head, *Hist. Num.*, 282. See *infra*.

² Gardner, *Anc. Coinage*, 279 f. Strack, *op. cit.*, 39 f., 135, 150.

³ Gardner, *op. cit.*, 327 ff.

⁴ *Ibid.*, 329.

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THASOS

Obv.

Rev.

Head of bearded Dionysus, ivy crowned, left.

ΘΑΣΙΟΝ Bearded Heracles kneeling, shooting with bow, in incuse square with or without linear square, various symbols in field, ca. 3.90 gm (6 varieties). Pl. I.

Head of young Dionysus, right.

Id. Grapes in field. 2.79 gm.

Head of young Dionysus, left.

Id. Inscr. retrograde. Club leaning against knee, 2.02 gm. Pl. I, I.

MARONEIA

Head of bearded Dionysus.

ΜΑΡΩΝΙΤΕΩΝ Vine. 4.01 gm.

Prancing horse; above, symbol, bunch of grapes.

ΜΑΡΩΝΙΤΕΩΝ Vine with four bunches of grapes within linear and incuse sq. ca. 3.20 gm (2 specimens). Pl. I, A-B.

AENUS

Head of Hermes in profile.

ΑΙΝΙΟΝ Archaic statue of Hermes standing on a throne. 2.11 gm. Pl. I, F.

AMPHIPOLIS

*Obv.**Rev.*

Young male head, l.
bound with a taenia.

AMΦΙΠΟΛΙΤΩΝ on
raised frame containing
race-torch; *symbol* tripod.
8.59 gm. Pl. 1, D.

Id.

AMΦΙΠΟΛΙΤΕΩΝ on
raised frame containing
race-torch; *symbol*, grapes
4.17 gm. Pl. 1, E.

A glance at the weights of these coins will surprise any one who expects a close correspondence between them and contemporary Attic issues, whether gold or silver. While one must be careful not to lay too much emphasis upon the weight of individual coins because of variations within a single issue, it must be remembered that gold coins adhere more closely to the norm than silver.¹ We shall see that the weight of many of the coins we are studying can be explained more easily by assuming that they belong to standards other than Attic.

¹ The variation between the heaviest and the lightest of six specimens of Thasian gold drachms of about Chian weight is less than two and one-half per cent. The heaviest weighs 3.945 gm, the lightest, No. 35, 3.85 gm. Excluding this exceptionally light piece, the variation is less than one per cent. The variation in two Maroneitan specimens from the same dies is about five per cent.

THASOS

As we happen to know the history of Thasos in greater detail than the history of the other three cities, its coins make a good point of departure. Professor Gardner says the Thasians "struck but little coin in the second half of the [fifth] century, that which they did strike following the standard of Athens" up to about 424. Then they made a breach with the past by adopting a new standard and new types. The standard they chose was probably Chian.¹

Leaving the question of date aside for a moment, let us consider the standard of the Thasian coins before the change. While didrachms not far from Attic weight were struck,² drachms are all of early

¹ Gardner, *op. cit.*, 271. For the date, see *infra*.

² They are not so rare as Professor Gardner's statement implies, unless one agrees with Svoronos, *J. I. A. N.*, XIX, 92-100, that many of the coins with Thasian types were struck on the mainland. The weights of thirty-two representative staters usually dated between about 475 and 411 range from 7.48 to 9.50 gms. I have made no attempt to make a complete survey of this group of coins. Excluding one very heavy specimen and two light specimens, the average weight is *ca.* 8.59 gm, but the weights are more than usually irregular. This may possibly be due to the fact that the standard was continually falling, a theory that I have not attempted to check. I append here a table of weights, which shows that the average gives an inaccurate idea of the weight distribution.

Above 8.80	= 3	8.40-8.49	= 4
8.70-8.79	= 7	8.30-8.39	= 4
8.60-8.69	= 5	7.48-7.76	= 2
8.50-8.59	= 7		

date, so far as I have been able to discover. Moreover, their weight is such that it is scarcely correct to call them Attic.¹ A more important denomination is the so-called tetrobol weighing about 3.60 gm.² While it is impossible to fit an Attic didrachm and a coin of 3.60 gm into any normal scheme of coinage, there can be no doubt as to the value of such a piece in neighboring cities, for it is identical with the Abderitan-Phoenician drachm. It can not very well be called a Thasian tetrobol, for then we should expect to find staters weighing 10.80 gm to correspond, about two grammes higher than the contemporary Thasian staters, though possibly correct for the stater before it began to deteriorate.³ What this coin may have been in the

¹ The group of so-called drachms is much smaller. The British Museum Catalogue, Nos. 12-14, lists three of archaic style, and I have found eight others whose weights and style might place them in this series, but the lightest of them might as well be considered over-weight tetrobols (?). They range from 4.64 to 3.99 gm and average 4.20 gm. Besides these archaic pieces, I have found only two that could possibly date after about 475-463, Jameson 1068, wt. 4.54 gm, the coin cited by Svoronos, *op. cit.*, p. 97, '15a, and McClean, 4201, wt. 4.67 gm. Thus it is clear that these coins, never very numerous, ceased to be struck about 450. As they are too heavy in comparison with the contemporary stater, they can not be called Attic drachms.

² Cf. Egger, XXXIX, 169-194. The Egger coins, most of which seem to have come from a hoard, may be taken as illustrative of the weights of this group. The average of all weights is 3.59, and thirteen of the 26 weights fall between 3.51 and 3.60 gm.

³ Svoronos, *op. cit.*, *Tableau Metrologique*, gives 10.26 gm as the theoretical norm for the so-called Paeonian stater used by Thasos. Babelon, *Traité*, I, 2, 1195 f., however, calls the original standard Lydian. He gives its norm as 10.89 gm.

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early fifth century when the stater of Thasos weighed about 9.25 gm¹ is immaterial to our discussion, but before 411 it was a drachm abroad and a pentobol at home, or wherever the Attic standard prevailed.

Since these pentobol-drachms had been for many years current in Thasos, the change in standard in 411² was very slight. Possibly the old staters had ceased to be struck shortly before the change of style, *i. e.*, about 430, but of this we can not be certain. It is even possible that the reduced weight of the staters was due to the first Athenian monetary law, which I am inclined to think was passed early in the Peloponnesian War and required the use of the Attic standard for silver struck within the Empire.³ In that case the last staters of the old type continued until the minting of silver was forbidden by Athens about 415.

There was a slight increase in the weight of the pentobol-drachms for some unknown reason⁴ suffi-

¹ The average of 72 specimens dating from *ca.* 550 to *ca.* 463, with a range from 11.00 gm to 8.05 gm, is *ca.* 9.25 gm. The average of 15 so-called tetrobols of the same period, ranging from 3.98 to 3.18 gm, is 3.60 gm.

² I have chosen the date 411 in preference to 424 for reasons given below.

³ See below.

⁴ Since a similar standard was domiciled in Paros certainly during the fourth century, possibly earlier, the close relation between Paros and Thasos may be in some measure responsible for its use in Thasos. For a treaty between Paros and Thasos, see Rubensohn, *Ath. Mitt.*, 1902, 273 ff. The treaty is contemporary with the monetary reforms of *ca.* 411.

cient to bring them within the range of the Chian standard.¹ Whether we must assume on this account that the Chian standard had begun to exert an influence on the Thracian coast at this time, I am unable to say, but certainly if the assumption is necessary, we must date the change in 411 rather than in 424, for then there would have been an incentive on the part of Thasos to enter into closer relations with the opposite shore of the Aegean.

Ultimately, there was a more radical change when Thasos adopted tetradrachms of the new weight; but for the first few years after the change in type no staters were issued, whether of the new weight or the old. Thus the change from one standard to the other was gradual and almost imperceptible. The following table shows the development of the new standard, and the issues of various denominations.

	Approximate dates	Total issues	No. of issues	Gold Av. wts.
I	<i>ca.</i> 411-390	13(?)	4	2.02 3.925
II	<i>ca.</i> 390-380	11	1	3.94
III	<i>ca.</i> 380-370	7	1	3.945
IV	<i>ca.</i> 370-357	9	2	3.85 2.79
V	<i>ca.</i> 356-340(?)	8(?)	0	....

¹ A frequency table (see p. 46 *infra*), groups more than a third of the specimens between 3.70 and 3.80 gm.

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	Tetradrachms		Drachms		Triobols	
	No. of issues	Av. wts.	No. of issues	Average of high weights	No. of issues	Av. wts.
I ¹	1	14.68	11(?)	ca. 3.85	0	...
II	4	ca. 14.75 ²	9	ca. 3.75	2	1.82
III	2	ca. 14.75 ²	5	ca. 3.72	3	1.71
IV	7	ca. 15.05	2	ca. 3.76	0	...
V ³	1	13.95	0	.....	0	...

It will be noted that about 370 there was a marked increase from about 14.75 gm to 15.05 gm in the average weight of the tetradrachm,⁴ and a drop just as sudden in the standard about 356. The first change was made only a few years after the entrance of Thasos into the second Athenian confederacy; still the purpose is not clear, unless it was intended to place the stater of Thasos more nearly on a par with that of Aenus, or to facilitate exchange with Athens. A Thasian stater and a triobol would equal one Athenian tetradrachm. Nor is there a ready explanation for the decline of the standard about 356, but since it is contemporary with the advance of Philip into the Pangaeon region and the adoption by him of the Phoenician standard, there may be some connec-

¹ To this period should be assigned one or more issues of trihemibols. Their average weight is about 0.95 gm.

² Omitting abnormally low weights.

³ To this period should be assigned about seven issues of didrachms, averaging ca. 6.76 gm.

⁴ For Period IV the average weight is probably less than the norm. See page 47 *infra*.

tion between these events. The loss of the Thasian mainland colonies might help to explain the poverty which is apparent in the late pieces of reduced standard. The use of the didrachm in place of the tetradrachm is hard to explain unless we ascribe it to growing poverty.

At the time of the change of standard in 411 the bearded Dionysus became the obverse type for the tetradrachms, drachms, and quarter drachms. Half drachms used a youthful head in place of the bearded Dionysus.¹ The reverse of all denominations was characterized by the archer Heracles, kneeling, a type borrowed from an apotropaic relief which served to protect one of the city gates.² At this gate, Dionysus also stood guard. Thus the association of the two divinities which appears on the coins of Thasos was of long standing. Although the relief of the archer Heracles is much earlier

¹ For the half-drachms, see Imhoof-Blumer, *Mon. Grec.*, p. 50, Nos. 51-54 (cf. Pl. IV, 23a, 23b, 24a, 29a, 31a); *B. M. C. Thrace*, p. 221, No. 50; Benson, 464. For quarter-drachms, see Imhoof-Blumer, *loc. cit.*, No. 55; Bement, 861; Egger, XLI (Fenerly Bey), 281; von Sallet, *Beschreibung*, I, p. 228, No. 18 (cf. Pl. III, 13a).

² Mendel, *Catalogue des Sculptures* (Musées Impériaux Ottomans) no. 518; Picard, *Monuments Piot*, XX, 1913, p. 56; *B. C. H.*, 1894, p. 64, plate XVI; *Rev. Arch.*, XXVI (1895), p. 106. It has been thought that the relief adorned and protected one of the city's gates; and Casson, *Macedon*, pp. 234 f., 251-253, has connected it with other apotropaic propylaic reliefs and inscriptions. Studniczka, *Jahresh. d. Österr. Arch. Inst.*, 1903, p. 185, argued that it ornamented an altar of Heracles and Dionysus, but his thesis seems not to be substantiated by later discoveries. See Deonna, *Rev. Arch.*, XI (1908), 25 ff.; Picard, *Comptes Rendus, Ac. Inscr. et Belles-Lettres*, 1912, p. 200.

than the rebuilding of the Thasian walls in 411 at the time of the revolt from Athens, still the adoption of the guardians of the city as coin types suggest a connection between the monetary reform and the strengthening of the city's defences.

On another group of quarter-drachms, not tabulated in the foregoing table, we find a kneeling satyr or silen holding a cantharus, copied likewise from a Thasian gate relief.¹ It is important to ascertain which series of quarter-drachms was the earlier. There are also two series of hemidrachms, one obviously contemporary with the quarter-drachms with kneeling satyr, for the smaller coin has on the reverse one amphora, the larger coin two amphoras.² The larger coin has for obverse type a Janiform satyr's head. Comparison of the Heracles hemidrachms with the staters and tetradrachms with the same type shows that they do not come at the beginning of the series.³ They were struck apparently between about 390 and 370. Moreover, the style of the double-amphora hemidrachms is weak, and it points to a date pos-

¹ Cf. *Num. Chron.*, 1919, p. 7, Pl. I, 11; see Picard, *Comptes R. Acad. Inscript et Belles Lettres*, 1912, pp. 201 ff.; 1913, p. 361; *Monuments Piot*, XX, 1913, 56. See Nos. 50-60, Pl. VI, of this monograph.

² The coins with Janiform head are comparatively rare. See *B. M. C. Thrace*, p. 221, 51, 52; von Sallet, *Beschreibung*, I, p. 290, Nos. 36-39; Warren Collection, 505; Hirsch, XXI, 998; Bement, 862; Ward Cat., 428; Jameson, 2026; de Luynes, 1803; McClean, 4213, 4214. See Pl. VI, Nos. 61-62.

³ See Pl. IV, Nos. 23α, 23β, 24α, 29α, 31α.

sibly about the middle of the fourth century, *i. e.*, after the Heracles triobols ceased to appear.

While the Dionysus-Heracles quarter-drachms are difficult to compare with the larger denominations because of the smallness of the type,¹ still they seem to be somewhat earlier in date than the Heracles hemidrachms and contemporary with some of the early Dionysus-Heracles drachms. The lower limit for the issue of this type of quarter-drachms was possibly 395. It was followed almost immediately by the quarter-drachms with amphora reverse. The amphora series extended over a considerable number of years, as may be seen from the number of extant specimens and from the diversity of style shown in the various dies. Certain of the coins show very fine workmanship, Fig. 1, and be-



Fig. 1

long to the best period of Thasian art. Others have the weakness of the Janiform silen found on the triobols.

It is even possible that some of the earliest specimens were struck before 411 to accompany the larger coins with a silen kneeling, holding a nymph,

¹See Pl. III, No. 13a.

not a cantharus, and that the dies were cut by the foreign artists who had produced the very fine coins which preceded the change in type. Since both the Heracles and the silen are types taken from Thasian gate reliefs, it is reasonable to suppose that the adoption of both types was more or less contemporaneous.

I have tabulated the weights of seventy-five quarterdrachms. They average .83 gm, and a frequency table gives a norm of about .85 gm.

.96-1.06	=	4
.91- .95	=	7
.86- .90	=	19
.81- .85	=	17
.76- .80	=	13
.71- .75	=	11
.61- .70	=	4
<hr/>		
		75

These weights would be satisfactory as divisions of the drachm weighing 3.60 gm, for small denominations rarely weigh as much as the standard requires. They would not be extraordinarily low for divisions of the heavier drachm of new type, the norm for which is between 3.70 gm and 3.74 gm, according to a frequency table for seventy-nine specimens.

4.00-4.06	=	4
3.90-3.99	=	1
3.80-3.89	=	12
3.75-3.79	=	11
3.70-3.74	=	16
3.65-3.69	=	12
3.60-3.64	=	10
3.50-3.59	=	10
3.20-3.49	=	3
		—
		79

Thus the group of amphora quarter-drachms might have started as divisions of the lighter drachms and been continued as divisions of the slightly heavier Dionysus-Heracles coins. Nevertheless, when the Heracles-Dionysus types were used for the smaller denominations, there was apparently an increase of weight amounting to about .10 gm for the quarter drachm. I have come to this conclusion because of the uniformity of weights displayed by the few published tri-hemiobols of the Dionysus-Heracles series. The five specimens range from 1.01 gm to .90 gm, and they average .95 gm.

The narrow range in the weights of this group of quarter-drachms is in marked contrast with the diversity shown by the amphora series. It would seem as though the explanation for this fact lay in the changes of standard at Thasos during the time that the amphora pieces were used. This

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would be true whether the series began before 411 or after 390. Coins struck after about 356 would show a decline commensurate with the fall of the stater from about 15.20 gm to less than 14.00 gm.

This phenomenon is more apparent in the triobols. The Heracles series, struck before 370, shows a norm of about 1.81 gm (seven specimens ranging from 1.87 gm to 1.60 gm), while the double amphora coins show two areas of grouping, one about 1.50 gm, and the higher between 1.72 gm and 1.77 gm.

$$1.72-1.77 = 6$$

$$1.68 = 1$$

$$1.58 = 1$$

$$1.50-1.54 = 4$$

$$1.41-1.49 = 5$$

$$1.36 = 1$$

$$1.14-1.17 = 2$$

—

20

There is one peculiarity about the kneeling-satyr quarter-drachms, *viz.*, the use of the *omega* in ΘΑΣΙΩΝ contemporaneously with the omicron (ΘΑΣΙΟΝ) which appears on all Thasian coins of Heracles type.¹ An adequate explanation for this diversity of spelling is hard to find, but one may at least suggest that the omicron of ΘΑΣΙΟΝ is a

¹ The British Museum triobol (B. M. C. Thrace, p. 221, No. 50) seems to be from the same dies as Imhoof-Blumer, *Mon. Grec.*, p. 50, No. 53, on which there is an omicron clearly legible. See Plate IV, Nos. 23α and 23β.

survival of the Parian alphabet which was once in general use in Thasos; and since the Parians interchanged the values of omicron and omega, the word ΘΑΣΙΟΝ would be the equivalent of ΘΑΣΙΩΝ, the genitive plural of the ethnic.¹ It is true that the Parian alphabet was abandoned for Thasian inscriptions earlier in the fifth century, and official inscriptions contemporary with the first Heracles-Dionysus coins regularly used Ω and Ο for the letters omega and omicron.² But when one remembers that the new Thasian coinage (411 B. C.) inscribed ΘΑΣΙΟΝ was the result of an anti-foreign (anti-Athenian) uprising, was accompanied by the renewal of close relations with Paros, and at the same time looked to sixth century reliefs for types, one may be permitted to express the opinion that some patriotic artist chose to revive the use of the ancestral alphabet, and that his example was followed in the following issues. Still, it is rash to be dogmatic. The form ΘΑΣΙΟΝ may be instead

¹ At Neapolis, a Thasian colony, we have a slightly different development. There the first coins of double type (*ca.* 450 ?) are inscribed ΝΕΩΠΙ (von Sallet, *Beschreibung*, p. 102, No. 27; Naville I, 679; Naville V, 1279). After a few years, under Athenian influence presumably, the omicron comes into use in the abbreviation ΝΕΟΠΙ. In passing, it may be noted that the name of the city in the Athenian quota lists is Νεάπολις, its ethnic Νεοπολίται, despite Casson's statement to the contrary (*op. cit.*, p. 67).

² For a beautifully cut inscription using Parian letters, see *B. C. H.*, XLVII, Pl. IV. In my opinion the letter-forms do not permit it to be dated in the first years of the fifth century. It was probably cut between 450 and 430.

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a neuter adjective, modifying some word like νόμισμα understood.

It should be noted in this connection that not all of the kneeling-satyr quarter-drachms use the omega. Two specimens, with incuses which seem to indicate a fifth century date (Plate VI, Nos. 50, 51), have the inscription ΘΑΣΙΟΝ which appears on the contemporary kneeling-Heracles drachms. Because of these specimens there need be little hesitation about assigning the beginning of the series to a date not far from 411. After a short time the issue was replaced temporarily by kneeling-Heracles quarter drachms, and when the kneeling-satyr reappeared upon the quarter drachms, the omicron was finally displaced by an omega on this denomination.

At the time of the change of types in 411, Thasos began to issue gold coins with the kneeling Heracles on the reverse and Dionysus or a youthful head on the obverse. There were three denominations of these gold coins, and judged by type, symbols, legends, and weights, the extant coins are from several distinct issues probably extending over many years.

In the neighborhood of Thasos, gold was comparatively abundant and therefore cheap. There were mines on the island and the rich Pangaeian region was readily accessible.¹ This proximity to gold mines would not necessarily have any effect

¹Cf. Hdt. VI, 46.

upon the weight of the Thasian gold coins, but it would probably prevent them from being below standard and might even produce coins a little over weight as at Panticapaeum.¹ Quite probably Thasos was operating her own gold mines at this time. At any rate her large tribute of thirty talents indicates wealth; and after her revolt, her struggle for the control of Neapolis suggests a desire to increase or reestablish her holdings in the mining region of the mainland.² Furthermore, Thasos, alone of the cities on the Thracian coast, coined gold year after year. Maroneia struck gold coins on two occasions, but there were eight different varieties of Thasian gold coins.

Cat. No. ³		Symbol	Weight
1	Λ Boston Museum of Fine Arts (Regling-Warren 499)	None	2.02
3	Λ British Mus. (Weber 2509)	Bunch of grapes(?)	3.93

¹ See Gardner, *Anc. Coinage*, p. 339.

² In an interesting inscription dating from about 415, according to its editor, Georges Daux, *B. C. H.*, L (1926), pp. 214-226, No. 2, the mainland aspirations of Thasos are apparent. Thasian ships are forbidden to carry foreign wines to the part of the mainland between Athos and Pacheia (Ἰσω Ἀθῶ καὶ Παχέλης). Officials which might be called "Mainland Commissioners" are also mentioned, οἱ πρὸς τὴν ἡπειρὸν ἐπιτετραμμένοι. The regulations embodied in this decree point to an economic policy scarcely compatible with membership in the Athenian Empire, and consequently it may well be associated with the revolt of 411.

³ See page 33, *infra*.

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Cat. No.	Symbol	Weight
9 \wedge R. Jameson, 2022 (ex Naville IV, 492)	Dolphin	3.91
10 \wedge E. T. Newell	Ivy Leaf	3.935
23 \wedge British Museum (Num. Chron. 1895, Pl. V, 3)	Twig	3.94
30 \wedge Berlin (Beschreibung I, 287)	Theta	3.945
35 \wedge Paris (Mionnet I, 433, 13; Supp. II, Pl. VIII, 6)	Bunch of grapes	3.85
41 \wedge Ivanoff Sale, 1863, 4 (Head right)	Bunch of grapes	2.79

It is therefore clear that the coinage of gold at Thasos was of regular occurrence and that it lasted over a number of years.

Although Thasos made gold a part of her regular currency, it is possible that in the first place it may have been struck as money of necessity, perhaps during her struggle to subdue Neapolis. This would be the time most natural for the minting of gold coins. Money was needed to pay the troops of the Peloponnesian allies and to defray the large expenses incidental to rebuilding the walls destroyed by Cimon and to placing herself in readiness for the probable Athenian counter-attack. Thus, knowing that Thasos struck gold toward the end of the fifth century, we should expect to find that this began between 411 and 408 in the brief period of Thasian independence, when money was needed in large quantities and when the restraining

hand of Athens was absent. Nor should we expect a city that had recently given up the Attic standard for silver to adopt it for gold, even though, as Professor Gardner says, "the mass of the currency in all the region at the time consisted of the silver coins of Athens".¹ Athens had not yet struck any gold coins of her own.

Nor do the weights of the Thasian gold coins bear out the theory that they were following Attic models. Of the three weights, only that of about 3.90 gm could be an Attic drachm, if it were minted in imitation of the Athenian coins; but as the norm for the Attic gold drachm was about .40 gm heavier than the heaviest extant Thasian piece, it seems incredible that any one would be willing to accept it at that valuation.² The coins of 2.78 gm might be considered Attic tetrobols, except that such a denomination, whether in gold or silver, was unknown at Athens, and that again it is slightly under weight. The division of the stater into thirds, tetrobols, was not an Attic device, and it fits in better with other standards and with anti- or non-Athenian influences.

The coin of 2.02 gm was perhaps originally about the weight of an Attic hemidrachm, but it might be considered a fourth of a daric stater.³ It should

¹ Gardner, *Anc. Coinage*, 329.

² The coin weighing 3.94 gm has suffered almost nothing from wear. *Num. Chron.*, 1895, p. 92, Plate V, 3; Plate I, 23*A* of this monograph.

³ Not described by Head and Gardner, now in the Boston Museum of Fine Arts, Regling, *Sammlung Warren*, No. 499; *Num. Chron.*, 1880, p. 5, Plate I, 4; Pl. I, 1*A* of this monograph.

be compared with a coin of Aenus of similar weight to be discussed later. As this was probably intended to pass as a quarter daric, the small coin of Thasos may have been valued at the same rate. Thus, on the whole, the weights of the Thasian gold coins bear out our previous conclusion that they were not minted with the Athenian example in mind. Certainly their weights can not be used to disprove our hypothesis.

It is more difficult to relate the coins to a single standard, but as issues of gold were only experimental, or perhaps money of necessity,¹ it may not be necessary to do that. One of the coins may have been minted to fill a specific need in one year, and the others may have been minted a few years later when conditions had changed and gold had become a recognized part of Thasian currency. In fact, a study of the coins themselves shows that they belong to different dates and different issues.

The heaviest of the three Thasian denominations in gold weighs about 3.90 gm. Although the gold drachms are uniformly heavier than the silver Chian drachms of *ca.* 3.70 gm, then used by Thasos, the difference is slight,² and there is no other standard to which they correspond even remotely. Athens in minting gold used her silver standard, and other cities would be inclined to do the same in similar circumstances.

¹ Gardner, *Anc. Coinage*, 329.

² Still they are within the maximum weight of the silver drachms. Bement 858 weighs 4.06 gm, and a Berlin specimen weighs 4.05 gm.

We must now consider the important question of dates.

It is difficult to be precise about the dates of the Thasian coins, whether gold or silver, but we know that during the Peloponnesian War changes of standard were frequent on the Thracian coast. Professor Gardner thinks that the chief landmark in the history of coinage in this region was the expedition of Brasidas.¹ While this is to a certain extent true of the district where Brasidas was active, one must remember that the adoption of the Macedonian variety of the Abderite-Phoenician standard in the Chalcidic peninsula began not later than the Chalcidic alliance with Perdiccas in 432, thus antedating the expedition of Brasidas,² and also that no city east of Amphipolis was affected.³ There were changes at Abdera and Maroneia during the first years of the Peloponnesian War, but other forces were at work there for which Brasidas was in no way responsible. For the district eastward from Amphipolis, including Thasos and Neapolis, the chief landmarks are the growing popularity of the Attic standard about 430, the rise and fall of the Odrysian empire, and the revolt of 411-408.⁴ Unfortunately these landmarks are

¹ Gardner, *Anc. Coinage*, 273 f., 277.

² West, *Class. Phil.*, 1914, 24-34; cf. Gaebler, *Z. f. N.*, 1925, pp. 205 ff.

³ If Amphipolis did not begin her coinage until after 409, the expedition of Brasidas was no landmark in the history of Amphipolitan coinage.

⁴ I shall discuss these points when I come to the coinage of Maroneia.

not as clear as they might be, especially as chronological data.

But as the standard of Thasos was closely related to Attic in the period before the change, and as the new standard was Chian, not Abderite-Phoenician, we are in a position to ascribe the new monetary system of Thasos to forces that became active on the Thracian coast with the advent of Peloponnesian fleets in the last years of the war. The new system would be due largely to political considerations and it would show Thasian sympathy with the Peloponnesian side, indicating a stage in the long drawn-out struggle when Peloponnesian fleets were preponderant in the Aegean.¹ Furthermore, the Chian standard works in well with the Aeginetic standard,² the one to which the Peloponnesian sailors were accustomed and one almost identical with the standard recently adopted by Abdera.³ It must be remembered also that Aenus about 412 changed from a light Attic standard to a form of Chian.⁴ Finally, as the new type, the

¹ Gardner, *Anc. Coinage*, 288 f.

² *Ibid.* A Chian drachm was about five-eighths as heavy as the Aeginetic drachm. This was a very convenient ratio for Thasos and Neapolis, for their coins of about 3.55 gm minted before 411 were probably considered Attic pentobols. Thus in the period of transition, an Aeginetic drachm would be called an octobol.

³ Strack, *Die Antiken Münzen Nord-Griechenlands*, II, 1, *Thrakien*, 33 f., 40 f.; Gardner, *Anc. Coinage*, 279; Head, *Hist. Num.*,² 254.

⁴ Strack, *op. cit.*, 150 ff.; Gardner, *Anc. Coinage*, 274; Head, *Hist. Num.*,² 246.

archer Heracles, was taken from an ancient bas-relief over one of the gates of the city, the coinage must be associated with the newly-won independence of the city and the rebuilding of its walls. Heracles was restored to his ancient place, metaphorically if not literally, as guardian and deliverer (Σωτήρ) of the city. Thus the Thracian reforms can not possibly precede 411, and they probably occurred soon afterward.

The first minting of gold coins, which must be considered contemporary with the Thasian reforms, may be taken as an illustration of the pressing need for money at Thasos and of the measures taken by Thasos to finance her struggle with Athens and Neapolis. Thus to the need of filling the war chest may be ascribed this departure from the continental Greek custom of depending upon silver currency alone, and never was the Thasian treasury so much in need of filling as in the years following 411 when Thasos had to provide maintenance for the Peloponnesian fleet that was assisting her to regain control of the mining region on the mainland. Since the money was to be used for the payment of sailors who had become familiar with gold coins on the Asiatic coast, it was most natural for the Thasian moneyers to turn to the minting of gold.

The list of Thasian coins below makes no pretense of being complete. It is merely a list of pieces which I have used, supplemented by others

which have come to my attention during the preparation of this monograph. The bracket { is used to indicate that coins were struck from the same dies; but no attempt has been made to examine all specimens for die combinations. Tetradrachms are given capital letters; didrachms and drachms, small letters; smaller denominations, Greek small letters. Plated and doubtful coins are given the letters x, y, z.

For convenience in establishing a chronological sequence for the gold coins, I have classified the issues of Thasos as follows:

LIST OF THASIAN ISSUES

PERIOD I, *ca.* 411-408, 404-390

I A There is usually a linear circle on the obverse, and a linear square about the kneeling Heracles of the reverse type, much of it, however, off the flan. Flans are large, but the reverse type is usually too large for the flan, and the legend, divided ΘΑΣ-I-ON, in large letters is never perfect. A projecting bunch of hair at the back of the Dionysus head is a characteristic of many specimens. A few specimens are without a symbol. The symbols are cornucopia, small cluster of grapes (?) somewhat resembling a cross, and cicada.

	Plate No.		Weight
No symbol	1	<i>Num. Chron.</i> 1880, p. 5, Pl. I, 4 (Regling-Warren 499)	2.02
	a.	Naville V, 1559 ex Headlam 412 ex Egger XXXIX, 195	3.79
	b.	Hirsch XXV, 239	3.72
	x.	Friedländer, <i>Griech. Fals. Münz.</i> 1; Sestini, Pl. IV, 2 (Forgery).	
Cornucopia	2	a. Naville IV, 494	3.73
	b.	Naville XIII, 653	3.77
	c.	Egger XXXIX, 200	3.72
	d.	Berlin	3.83

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	Plate No.		Weight
Cornucopia	2	e. { Egger XLI, 280	3.61
		f. { Newell	3.77
		g. { Jameson 2025	3.84
		h. { Hirsch XVI, 346	3.60
		i. { H. Weber 2513	3.73
		j. { Berlin	3.70
		k. Br. Mus. Cat. 44	3.59
		l. McClean 4212	3.59
		m. Br. Mus.	3.85
Grape cluster (?)	3	<i>Num. Chron.</i> 1922, 163 f. Pl. VI, 16	3.93
		a. { Naville V, 1560	3.72
		b. { Berlin	3.67
Cicada	4	a. Paris (Mionnet, I, 433, 23)	3.64
		b. Hirsch XIII, 683	3.65
		c. Egger XXXIX, 196	3.77
		d. Berlin	....
		e. Berlin	....
		f. Br. Mus. Cat. 43	3.81

I B The chief difference between this and the preceding group is the slightly smaller flan, smaller letters, and smaller reverse type nearly all of which is now on the flan. The symbols are fly (cicada ?), salamander, astragal.

	Plate No.		Weight
Fly left	5	a. Naville X, 489 ex I, 1120	4.02
		b. Athens
		c. Hirsch XXI, Weber, 997	3.63

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	Plate No.		Weight
Fly right	6	a. { Boston, Perkins 197	3.74
		b. { Egger XXXIX, 201	3.68
		c. { Egger XXXIX, 202	3.75
		d. Collector's name unknown	....
Salamander	7	a. Bement 858	4.06
		b. Regling-Warren 503	3.72
		c. Berlin	4.05
		d. Hirsch XVII, 761a	4.02
		e. Br. Mus. Cat. 41	3.60
		f. Egger XLVI, 380	3.61
		g. Mionnet, I, 434, 22	....
		h. Leake, <i>Num. Hell. Ins. Gr.</i> ,	
		p. 44,	3.76
		x. Mionnet, I, 434, 17 (for-	
		gery)	
		y. Br. Mus. Cat. 49 (forgery)	3.76
Astragal	8	a. E. P. Robinson	3.66
		b. Hirsch XIV, 265	3.75
		c. Br. Mus. Cat. 42	3.50
Uncertain		Hirsch XXV, 238	3.84
		Hirsch XII, 157	....

I.C This group is transitional. In some specimens Dionysus lacks the bunch of hair, and the linear circle disappears before the end of the period. Symbols: dolphin, ivy leaf, cantharus and club, cluster of grapes and club, and slender amphora. To this group we can possibly assign the Dionysus-kneeling Heracles triobols without symbols.

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	Plate No.		Weight
Dolphin	9 Λ	Jameson 2022 ex Naville IV, 492	3.91
		a. Berlin (beschädigt)	3.78
		b. Mionnet, Supp. II, 546, 32	
		c. McClean 4209	3.50
Ivy Leaf	10 Λ	Newell (Obv. 9 Λ)	3.935
Cantharus	11	a. Newell	3.72
and club		b. Naville V, 1561 ex H. Weber 2514	3.62
		c. Egger XXXIX, 199	3.69
		d. Copenhagen	3.88
		e. Mionnet, I, 433, 20	....
		f. Mionnet, I, 433, 21	....
Cluster of grapes			
and club	12	a. { Beatty	3.90
		b. { Berlin	3.81
Slender am-			
phora	13	A. Jameson 2023 ex Egger	
ΘΑΣΙ-ON		XLI, 278	14.68
		X. Br. Mus. Cat. 37 (Plated)	12.73.
Triobols	13	α. Newell	1.01
without		β. Berlin	.96
symbols.		γ. Imhoof-Blumer 55	.95
		δ. Bement 861	.92
		ε. Egger XLI, 281	.90

PERIOD II, *ca.* 390–380

II A The letters become smaller and are all on the flan. The division is ΘΑΣΙ-O-N. Symbols: owl, gorgoneion. It is worth noting that the Thasian coins of the Egger Catalogue XXXIX, most of which seem to have come from a hoard, stop with this group. The earlier periods are each represented. There are no staters in the Egger catalogue.

	Plate No.		Weight
Gorgoneion	14	Egger XXXIX, 197	3.77
Owl	15	A. Mionnet, Supp. 546, 31	....
		a. Br. Mus. Cat. 46 α	3.67
		b. Egger XXXIX, 198	3.71
		c. Hirsch XXV, 239	3.42
Symbol in-			
distinct		McClellan 4208, Pl. 152, 3	3.57

II B The inscription is now divided ΘΑΣΙΟ-N, the N being to the right of the head of Heracles. Symbols: amphora, pomegranate, helmet.

	Plate No.		Weight
Amphora	16	A. McClellan 4206 ex Carfrae, May 23, 1894, 132	14.53
		B. De Luynes 1802; Mionnet, Supp. II, p. 545, 28	15.16
		a. Regling-Warren 502	3.69
		b. Berlin	3.78

38 FIFTH AND FOURTH CENTURY

	Plate No.	Weight
Pomegranate		
	17 a. Paris 1523	3.81
	b. Berlin	3.65
Helmet	18 A. Commerce	14.76

The place of this unique piece in the series is approximately here. The relief is very high, the workmanship is fine, and the letters are large. If the N of ΘΑΣΙΟ(N) had been on the die, it would have occupied a position to the right of the head of Heracles, as in the other pieces of this group. The O is not in line with the other letters but is placed somewhat similarly to the N of the next group, to the left of the head.

II C The inscription is written ΘΑΣΙΟ-N with the N to the left of the head. Symbols: acanthus in scroll, bucranium, twig, Boeotian shield, dolphin, and caduceus.

	Plate No.	Weight
Acanthus in scroll	19 a. Bement 860	3.84
Bucranium	20 A. Commerce	14.50
	a. Pozzi, 1121	3.67
	b. Berlin	....
Caduceus	21 a. { McClean 4211, Pl. 152, 4	3.72
	b. { Paris 1525, (Mionnet I, 433, 19)	3.72

THRACIAN COAST GOLD COINS

39

	Plate No.		Weight
Boeotian Shield	22	a. Athens 1164	3.66
		b. Berlin	3.56
Twig	23 ¹	~ Br. Mus. (ΘΑΣΙΟΝ)	3.94
		a. Regling-Warren 504	3.85
		b. H. Weber 2512	3.84
		α. { Berlin 19 (Imhoof- Blumer <i>Mon. Grec.</i> ²	
		{ No. 53)	1.81
		β. { Br. Mus. Cat. 50	1.77
Dolphin	24	α. Berlin (Imhoof-Blumer, 51)	1.87

PERIOD III, ca. 380-370

The inscription is undivided. Symbols: Θ, round shield, torch, lion's head, head of Pan, lyre with round body, and owl.

	Plate No.		Weight
Lion's head	25	a. { Naville VI, 859	3.66
		b. { Munich, <i>Verzeich. Gr.</i> <i>Münz. z. d. k. Münzkab.</i> <i>zu München</i> , Pl. IV, 12	....
Head of Pan	26	a. Hirsch XVII, 762	3.32
		b. Boston, Perkins 198	3.86

¹ Possibly these three denominations should not be assigned to one issue. There are differences in the twig used as symbol, in the disposition of the inscription, and in the incuse. The triobols have no linear square, and the incuse, which inclines to be circular, is shallow.

² Hereafter in the Thasian Catalogue cited as Imhoof-Blumer, with the number of the coin as given by him.

40 FIFTH AND FOURTH CENTURY

	Plate No.		Weight
Head of Pan 26	c.	Paris 1524, Mionnet, I, 433, 18 (Rev. = Perkins)	3.78
	d.	Copenhagen	3.70
	e.	Berlin	....
	f.	Br. Mus. Cat. 45	3.74
Owl right	27	a. Br. Mus. Cat. 46	3.68
Lyre with round body	28	A. Regling-Warren 501	14.67
		B. De Luynes 1801, Mionnet, I, 433, 14, Pl. LV, 5	13.40
		C. Naville X, 488	15.26
		D. Copenhagen	14.14
		X. Hill, <i>Becker</i> 37 (forgery)	
		Y. Friedländer, <i>Gr. Fals.</i> <i>Münz.</i> , Dumersan, viii. (forgery)	
		a. Naville I, 1122	3.65
		b. Beatty	3.57
		c. Copenhagen	3.63
		d. Berlin	3.62
		α. Imhoof-Blumer 52 (Amsterdam, Pl. IV, 7)	1.62
		β. Milan	1.60
		γ. Br. Mus. (Fig. 2)	1.49



Fig. 2

THRACIAN COAST GOLD COINS

41

	Plate No.		Weight
Round shield	29	A. Benson 462	14.77
		B. Br. Mus. Cat. 36 (Guide 12, 7)	14.84
		C. Mionnet, I, 433, 15, Supp. II, Pl. VIII, 4	....
		a. Hirsch XX, 211	3.74
		b. Br. Mus. Cat. 47	3.56
		c. Hoffman Sale 237	....
		α. Newell ex Benson 464	1.81
Theta	30	Λ Berlin	3.945
Torch	31	α. Munich, Imhoof-Blumer 54	1.81
Symbol uncertain		X. Hirsch, XXIX, 187, (plated)	13.69

PERIOD IV, *ca.* 370-350

The incuse becomes circular and in some of the specimens the hair is more stylized. Drachms are rare and there are no smaller denominations of Dionysus-Heracles type. Probably instead of drachms, the triobols with a Janiform Silenus head were struck. Because of the treatment of the hair in the Berlin gold piece (No. 30), it should possibly be assigned to this group. The weight of the tetradrachm is markedly heavier in this period, with a norm of about 15.20 gm. Because of the weight of the Vienna tetradrachm listed under No. 32, this issue seems to belong metrologically to Period IV.

42 FIFTH AND FOURTH CENTURY

Symbols: lion's head and club, cantharus, fly, cluster of grapes, lyre, swastika, wreath and monogram, thunderbolt, and bipennis.

	Plate No.		Weight
Cantharus	32	A. <i>Num. Chron.</i> , 1897, Pl. IV, 3 ex Bunbury 1896, 602	14.84
		B. Berlin	14.36
		C. Vienna, cited by Imhoof- Blumer, p. 50, n. 19	15.40
		D. Spencer-Churchill (Hill, <i>Select Greek Coins</i> , Pls. IV, 2, and XL, 4.	....
		a. McClean 4210	3.56
		b. Br. Mus. Cat. 48	3.82
Lion's head and club	33	A. Berlin, <i>Beschreibung</i> , Pl. VII, 66	15.27
Fly	34	A. { Naville V, 1558	15.31
		B. { Commerce	15.35
		C. Leake, <i>Num. Hell. Ins.</i> <i>Greece</i> , p. 44 (Mionnet, I, 434, 16)	15.29
Cluster of grapes	35	Λ Paris (Mionnet, I, 433, Pl. VIII, 6)	3.85
Lyre	36	A. { Naville VI, 857	15.14
		ex Hirsch XXXIV, 264	
		ex Durufle, Aug. 9, 1910, 283	
		B. { Regling-Warren 500	15.16
		X. Br. Mus. Cat. 38 (plated)	12.28

THRACIAN COAST GOLD COINS 43

	Plate No.		Weight
Swastika	37	A. { Naville IV, 493 ex Weber, 2510	15.04
		B. { McClean 4207	14.65
		C. Newell ex Jameson 1070 ex Hirsch XIII, 681	15.29
		D. Hirsch XXV, 237	14.54
Wreath and monogram	38	A. Egger XLVI, 378	14.81
		B. Weber 1908, 995 (Not good)	14.08
Thunder-bolt	39	A. Egger XLI, 279	15.02
		B. Merzbacher 1909, 2691 (Obv. = Egger)	14.41
		C. Feuard. 6, 9, 1911, 156	....
		a. Hunter 390, No. 7 (<i>cf.</i> Mionnet, Supp. II, 546)	3.70
		b. Hirsch XXV, 239	3.52
Symbol uncertain	40	a. Berlin	3.43
Grapes	41	✓ Ivanoff Sale, 1863, No. 4; (Young head r.)	2.79

ADDENDUM

Bipennis	32½	a. E. P. Andrews (Fig. 3)	3.76
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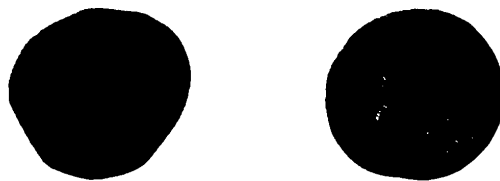


Fig. 3

44 FIFTH AND FOURTH CENTURY

PERIOD V, *ca.* 350–340

Some of the Dionysus heads of the last group face right, and the style becomes weaker. The symbols are replaced by monograms and the standard deteriorates. For the most part the reverse is almost flat. Some of the coins of this group are so poor in workmanship that they seem rather like barbarous imitations. Tetradrachms are rare. The bulk of the coinage of this period is composed of didrachms weighing 7.00 gm or less.

	Plate No.		Weight
⌘ (head r.)	42	a. Paris 1529 (Mionnet, I, 434, 24, Pl. LV, 11)	7.00
		b. De Nanteuil Coll. 729 ex Benson 463	6.76
⌘ or ⌘ (head l.)	43	a. Hunter, p. 390, No. 6 (Mionnet, II, 546, 29)	6.80
		b. Berlin 11 (sehr beschädigt)	6.75
⌘ (head l.)	44	a. Br. Mus. Cat. 40 ¹	6.96
⌘ (head r.)	45	A. Paris	13.95
⌘ and club (head r.)	46	a. { Br. Mus. Cat. 39	7.02
		b. { Jameson 2024 ex H.	
		Weber 2511 ex Meynell 1887, 584	6.75

¹The genuineness of this coin is suspected

THRACIAN COAST GOLD COINS

45

	Plate No.		Weight
Σ (head r.) 47	a.	Paris 1530 (Mionnet, I, 434, 25)	6.60
	b.	Hirsch XIII, 682 ex Belle, Schul. 1913, 2137	6.40
	c.	Berlin	7.00
No mono-gram	48	a. Egger XLVI, 379	6.38
	49	x. Hirsch XXI, 996 (Echtheit gezweifelt)	7.70

THASIAN FRACTIONAL PIECES WITH AMPHORA TYPES REPRODUCED ON PLATE VI.

<i>Number</i>		<i>Weight</i>
50	Berlin	0.68
51	Berlin	0.94
52	Paris 1539	0.80
53	Berlin	0.96
54	Berlin	0.88
55	Berlin	0.83
56	E. T. Newell	0.87
57	Berlin	0.88
58	Berlin	0.89
59	Berlin	0.89
60	Berlin	0.91
61	Paris	1.17
62	Ward 428	1.49

46 FIFTH AND FOURTH CENTURY

TABLES OF WEIGHTS

Tetradrachms Groups I-III

15.16-15.26 =	2
14.84 =	1
14.76-14.77 =	2
14.67-14.68 =	2
14.50-14.53 =	2
13.40-14.14 =	2
Plated =	2

13

Norm *ca.* 14.70 gm

Triobols

1.87 =	1
1.81 =	3
1.77 =	1
1.62 =	1
1.60 =	1
1.49 =	1

8

Norm *ca.* 1.81 gm

Drachms Groups I-III

4.05-4.06 =	2
4.00-4.04 =	2
3.95-3.99 =	0
3.90-3.94 =	1
3.85-3.89 =	4
3.80-3.84 =	8
3.75-3.79 =	11
3.70-3.74 =	15
3.65-3.69 =	12
3.60-3.64 =	10
3.55-3.59 =	6
3.50-3.54 =	2
3.32-3.42 =	2

75

Norm *ca.* 3.70 gm

Quarter drachms

1.01
0.96
0.95
0.92
0.90

Average *ca.* 0.95 gm

TABLE OF WEIGHTS—*Cont.*

<i>Tetradrachms Group IV</i>	<i>Drachms Group IV</i>
15.31-15.40 = 3	3.82
15.21-15.30 = 3	3.76
15.11-15.20 = 2	3.70
15.01-15.10 = 2	3.56
Below 15.00 = 7	3.52
Plated = 1	3.43
—	Av. ca. 3.63
18	

Norm ca. 15.20 gm

It is interesting to note that in the foregoing classification of Thasian issues the owl appears as a symbol not far from 390 and also a second time in the early seventies. While there may be no significance in the choice of this Athenian type, still it is probably more than a coincidence that friendly relations between Thasos and Athens were resumed, first during the short-lived Athenian confederacy when Thrasybulus' Thracian campaign of 389 secured the adhesion of Thasos,¹ and later when Thasos joined the Second Athenian Confederation in 375.² Whether there is any political significance in the Boeotian shield is uncertain. The other symbols do not appear to have any historical importance.

¹ See Wilhelm, *Eranos Vind.*, 1893, 241 ff; Dem. XX, 59; Xen., *Hell.* V, 1, 7. Between 385 and 375, the leaders of the pro-Athenian party were in exile. Cf. *I. G.*, II³, 33.

² Ditt., *Syll.*,³ 147; Diod., XV, 36.

48 FIFTH AND FOURTH CENTURY

Of the gold coins, there can be no doubt that three, Nos. 3 Λ , 9 Λ , and 10 Λ , are contemporary with the drachms of Group I. Thus the minting of gold comes, as we have assumed, at the very beginning of the new series, certainly within two or three years after the change of types. The next gold pieces, Nos. 23 Λ , 30 Λ , and 35 Λ , in symbols and general style resemble the silver issues of Groups II C, III, and IV, and they are probably to be dated between 390 and 365. They have as symbols a twig, bunch of grapes, and Θ .

In addition to these pieces of Chian weight, there are two others. One of them, No. 41 Λ , I know only from its description in the Ivanoff sale catalogue. It has a youthful head instead of the bearded Dionysus, in this respect resembling gold piece No. 1 and the Heracles series of triobols. Except for its weight, which is different from that of the gold coins contemporary with these triobols, one might assign it to the years when the youthful head was the ordinary triobol type. Consequently, one must assign it either to the beginning or the end of the gold series. Its symbol, a bunch of grapes, might connect it with the Paris specimen of Chian weight, 35 Λ , which is late. The latter lacks the linear square and its incuse is more or less rounded. It should be noted too that the head of the Ivanoff piece faces right, just as do the heads of some of the late didrachms which we have dated after 356. Tentatively, then, I have assigned this gold piece to the end of the series.

No. 1 Λ , weighing 2.02 gm, the second of the two small pieces, is not cited by Head and Gardner. It, too, lacks the linear square, and it has the unbearded head. Still, the head of the gold piece, a youthful Dionysus crowned with a wreath of ivy, is in no way suggestive of the taenia-bound heads of the silver triobols, while its reverse is much closer to the reverses of No. 3 Λ and the quarter-obols with bearded head. Moreover, the fact that the legend is divided as in the earliest drachms and is retrograde, points to an early date. It resembles the first issue of drachms, also, in being without a symbol. Consequently, there can be little question that it was one of the first coins struck after the adoption of the Heracles type.

Thus the gold coins of Thasos probably began about 411 and ended about the middle of the fourth century.

We must now try to determine the rate of exchange between the gold coins of Thasos and its contemporary silver issues, a difficult matter since we do not know whether design was responsible for the heavy weights of the coins we have called Chian gold drachms, or whether the tendency of heavy coins to find their way into hoards may not be responsible for the high weight of the extant specimens. If we conclude that the weights were purposely high, we must assume that the exchange value was the determining factor. For example, at a gold-silver ratio of thirteen and a third to one,

the Asiatic ratio which applied to the only gold coins that were current in any quantity before 400, it would have been necessary to make the gold pieces slightly heavier than the silver drachms in order to facilitate exchange. Otherwise, one gold piece would equal thirteen and a third drachms, and Thasos minted no thirds. As it happens, the weight of the gold coins is explicable on this assumption, for one gold piece equals fourteen silver pieces, ($3.90 \text{ gm} \times 13\frac{1}{3} = 52 \text{ gm}$; $52 \text{ gm} \div 14 = 3.71 +$), and since the Thasian mint produced no tetradrachms before 400, there would be no difficulty on this score.

On the other hand, if we assume that gold coins were issued for war expenses incurred while Peloponnesian fleets were active on the Thracian coast and that the Thasian monetary policy was influenced, if not determined, by the needs of the sailors, we can relate the gold coins to the Aeginetic standard at the same ratio of thirteen and a third to one, for that ratio must have been familiar to the Peloponnesians because of their relations with the Persians in Asia Minor. Since a drachm such as Thasos was minting weighed about three-fifths as much as an Aeginetic drachm, a gold drachm of the same weight would equal in value three-fifths of thirteen and a third Aeginetic coins or four staters.

Thus the exchange was easy, however we figure it. But the Thasian mines¹ and the nearness of the

¹ Hdt. VI, 46 f.

island to the gold supply of the mainland may have lowered the value of the gold, or there may have been no attempt to fix the weights so as to make exchange easy. In that case "the gold coins were left to make their own terms with the contemporary issues". We need not assume that the Athenian proportion of twelve to one was accepted in Thrace,¹ although local conditions in Thasos may, sooner or later, have lowered the value of gold there.

The change of weights for the gold coins may in itself be the result of a gradual change in the price of gold, but even this is not at all certain. The coin of 2.79 gm may be rated as a third of a daric. Since a daric equalled twenty shekels and since a Thasian drachm weighed about two-thirds as much as a shekel, a third of a daric equals at the Asiatic gold-silver ratio exactly ten Thasian silver drachms. In other words, there existed between the weights of the gold and silver coins of Thasos the same ratio that we find in the Persian coinage. The gold coin of 2.79 gm was three-quarters of the weight of the silver coin, 3.70 gm. If tetradrachms were then being minted, the gold piece would equal two and one-half tetradrachms.²

¹ As Professor Gardner has assumed, *Anc. Coinage*, p. 330.

² Possibly this piece was contemporary with the gold stater (Plate I, H) weighing 8.50 gm, struck by a Thasian colony on the mainland shortly before 357 (Hill, *Historical Greek Coins*, p. 79). Although this stater is slightly heavier than a Daric, it is too light for an Attic stater. Moreover, its weight is such that it exchanges readily for seven and one-half contemporary Thasian tetradrachms of about 15.20 gm, if gold is thirteen and a third times as valuable as silver.

If, as we have tentatively concluded, the coin is later than the Chian gold drachms, it is possible that the ratio at the time of minting was only 12-1, but such an assumption makes it necessary to explain why Thasos gave up using gold coins of drachm weight so well fitted for a gold-silver ratio of twelve to one. With scarcely a change, the Thasians could have had a gold piece equalling three tetradrachms; but with a gold piece only three-quarters as heavy as a silver drachm, there would have been an equality between one gold piece and two and a quarter tetradrachms, a wholly unnecessary and none too convenient relationship. But if we assign the coin to a period after 356 when the silver standard of the island had been lowered to the point where the didrachm averaged *ca.* 6.84 gm; a 12-1 ratio would result in a parity between one gold piece and five didrachms ($2.79 \text{ gm} \times 12 = 33.48 \text{ gm}$, $6.84 \text{ gm} \times 5 = 34.20 \text{ gm}$), assuming a slight loss in the weight of the gold piece. Since the date of the piece can not be determined by its style, it might be possible to assign it to a year slightly before the conquest of the island by Philip, and to assume that gold was even less valuable. At a ten to one ratio, four silver staters (didrachms) would be approximately equal to one gold piece. Thus there is no reason for giving this piece an early place in the series.

The smallest gold coin of Thasos, a quarter

daric, or possibly a quarter of the slightly heavier standard used by the Chalcidians, at the Asiatic ratio of $13\frac{1}{3}$ -1, would equal eight drachms of the standard in use after 356. At a twelve to one ratio, the exchange would not be easy. But we have dated it about 411 when the silver drachm weighed about 3.70 gm, and at that time it certainly was worth seven and a half drachms, if we take into consideration the loss in weight which it has obviously suffered.

On the whole, although many points remain doubtful, it would seem as though the gold-silver ratio were more or less stable at the Asiatic ratio of thirteen and a third to one. There is little, if any, indication of Athenian influence, either as to mint ratio or denominations.

In addition to the mint ratio, which must have been taken from Persia, the bearded Heracles represented as an Archer, the new reverse type of the Thasian coins, may be another indication of Persian influence through imitation. On some of the silver coins and on the smallest gold piece this resemblance to the archer of the shekel and the daric is more marked than on others, for the club of Heracles leaning against his knee reminds one of the spear of the Persian coins, a similarity to which there may be an obscure reference in Pollux's *Onomasticon*. He says τῷ νομίσματι ἐνεχαράξαντο . . . Θάσιοι δὲ Πέρσην.¹ I do not know just what Pollux meant

¹ Pollux, ix, 84.

by Πέρσην, but Imhoof-Blumer's conjecture that the archer god of the Thasian coins was intended to represent a Semitic god Perses is scarcely credible since there can be no doubt that the patron god of Thasos that appears on the coins was known as Heracles.¹ But unless Pollux is referring to some unknown coin, I think it possible that either he or his authority, whom he possibly misread or misunderstood, meant that the Thasians adopted the Persian archer type for their coins. Thus, the Perses of the Thasian coins is the Persian king changed by the hands of native artists into the patron god of the city.²

¹ Imhoof-Blumer, *Mon. Gr.*, p. 50, note 19. For the worship of Heracles at Thasos, see Picard, *B. C. H.*, 1923, pp. 241 ff. He shows that there is no archaeological evidence for the Phoenician origin of the Thasian Heracles. As early as the end of the sixth century, the Thasians identified him with the Greek hero, son of Alcmena. No one, I think, after reading this article will agree with Imhoof-Blumer's identification of the Thasian Heracles with a Semitic god Perses. The proof that the Heracles of the gate and of the coins was the Greek hero is to be found in an inscription placed at the gate, *I. G. XII*, 8, 356. For a more recent discussion of the Thasian cults of Heracles and Dionysus, τῆσδε πόλεος φύλακοι, see Seyrig, *B. C. H.*, LI (1927), pp. 185 ff.

² Of course the ancient bas-relief from which the coin type was directly taken may have inspired some native artist with the idea of making the Thasian coins resemble the Persian in this particular.

ADDENDUM

Another gold coin like No. 9A has been recently acquired by Mr. Empedocles.

II

MARONEIA

Turning now to Maroneia, a city whose numismatic history is closely connected with Abdera, we find that it issued gold coins of two weights, *ca.* 4.00 gm and 3.24 gm (62 and 50 grains).¹ Up to about 430, as I shall try to show, Maroneia used the Phoenician standard that had been used in Abdera. Then for a few years, like Abdera, it seems to have been experimenting with its currency, for coins struck some time between 430 and 410 are of a nondescript weight used at Abdera, where it has been called Aeginetic.² During the years when the Thracian coast was in revolt from Athens, or possibly after the break-up of the empire in 405, Maroneia minted coins of another peculiar weight, sometimes named Light Attic.³ When this period of experimentation was over, Maroneia, with Abdera, settled down to the use of the Persian standard, probably about 395.

Before discussing the problems presented by the

¹ Gardner, *Anc. Coinage*, 329; *B. M. C. Thrace*, p. 233; *Num. Chron.*, III, p. 109, No. 1; Head, *Hist. Num.*,² p. 250. I have been unable to locate the heavier of the two coins described by Head and Gardner. Of the lighter, I know of two specimens, one in London, 3.14 gm (48.5 grains), the other in Paris weighing 3.32 gm, Pl. I, A-B.

² Strack, *op. cit.*, p. 40. Gardner, *op. cit.*, p. 279, calls the standard Aeginetic.

³ *Num. Chron.*, 1888, p. 2 ff.; *Z. f. N.*, XXXIV, p. 32, note 2.

gold coins of Maroneia, we should consider the evidence on which the foregoing outline of Maroneitan monetary history is based, and we must try to ascertain the significance of the changes in standard, the character of the various standards used by Maroneia, and their relationship with neighboring standards.

Our study must begin with the Maroneitan tetradrachms of Abderite-Phoenician weight, for the years when they were minted constitute a definite period in the history of the city. Up to the time when they were struck, Maroneia used didrachms (Pl. I, C), drachms, and smaller coins. Now the substitution of tetradrachms for didrachms¹ and the increased output of the Maroneitan mint indicate, so it would seem, prosperity due to an extensive foreign commerce. Quite likely, the growing commerce was with the interior, for trade with Athens or districts on the shores of the Aegean would have been better served by the use of the Attic standard.

Proof that Maroneia experienced a burst of prosperity in the second half of the century is to be found in the Attic quota lists. Up to 438 the

¹ The last extant didrachms bear the name ΠΟΣΕΙΔΙΠΠΟΣ, (Pl. I, c), a magistrate's name not found on the Phoenician staters. Yet the arrangement of the vine with the linear and incuse squares, together with the workmanship, makes it very probable that these coins are contemporary with the early Phoenician staters. Possibly no staters were struck under this magistrate. Cf. von Sallet, *Beschreibung*, I, p. 181, 44, 45.

tribute of Maroneia indicates no great wealth, but in 438–7 her tribute was raised from one and a half talents to ten, a sum that was paid at least until 432 or 431. By 427–6 Maroneia's tribute was reduced to three talents.¹

This sudden prosperity is almost certainly due to disturbances on the Thracian coast arising from the growth of the Odrysian empire. Just when Maroneia was prospering, Aenus was suffering, for its tribute was reduced from ten talents to four in 438–7.² After that date it is doubtful whether it paid any tribute at all, for its name does not appear on any of the later quota lists, some of which are complete for the Thracian district. Thus the loss suffered by Aenus was Maroneia's gain. But the Odrysian power was spreading westward, and the rich harvest of the first few years was not permanent. By this time Abdera also felt the influ-

¹ The dates I give for changes of tribute are based on recent studies of the quota lists, begun by Fimmen, *Ath. Mitt.*, 1913, 231 ff., and continued by West and Meritt in a series of articles not yet completed. Between 454 and 438 the tribute was one and a half talents, as is shown by *I. G. I.*,² 191–202. While the date of *I. G. I.*,² 202 is 443–2, the next revision of the assessment was in 438–7, as Meritt shows, *A. J. A.*, 1925, 292 ff. That the tribute was increased at that time to ten talents is shown by *I. G. I.*,² 209, 210, lists which belong to this assessment period. In 434–3, *I. G. I.*, 211, the tribute was still ten talents. Possibly it was reduced during the period 434–431 to three talents, but the restoration of the name in *I. G. I.*,² 213, is conjectural, and it must not be used as evidence. The next record, *I. G. I.*,² 218, dating from about 427–6, shows that Maroneia was then paying three talents.

² See *I. G.*, *I.*,² 205 and 209.

ence of these Thracian disturbances, for in 432 her tribute was lowered from fifteen talents to ten.¹ Lower than that it did not go in the extant lists.

Maroneia perhaps was the permanent gainer from the impoverishment of Aenus and Abdera, for its tribute never returned to the earlier sum of one and a half talents, and its coinage progresses uninterruptedly from one standard to another with a fairly plentiful supply of tetradrachms.

I think we may date the first minting of tetradrachms at Maroneia about ten or fifteen years before her tribute was raised to ten talents, that is, about 450. At first, coins of this denomination were struck in small quantities and at irregular intervals, but about the time Maroneia was paying her maximum tribute tetradrachms became plentiful. There is an appreciable gap, for example, between the coins No. 1 and No. 3 on Plate VII, but toward the end of the series the style changes imperceptibly from issue to issue. Frequently we have several specimens from the same dies, and occasionally we have visible proof that the dies received hard usage.

In order that we may have as complete a picture as possible of Maroneitan coinage in the last fifty

¹ In 433-2, *I. G. I.*² 212, Abdera paid 15 talents. In the next year, *I. G. I.*² 213, the tribute was ten talents, and it paid that sum about 427, *I. G. I.*² 218. There are no other records for the period of the Peloponnesian War.

years of the fifth century I have compiled the following tables. While my material is by no means exhaustive, it is full enough for the purpose.

TABLE OF WEIGHTS FOR ABDERITE-PHOENICIAN
TETRADRACHMS

14.76 = 1	13.81-13.90 = 13
14.51-14.60 = 2	13.71-13.80 = 6
14.41-14.50 = 0	13.61-13.70 = 0
14.31-14.40 = 2	13.51-13.60 = 2
14.21-14.30 = 5	13.41-13.50 = 1
14.11-14.20 = 8	12.64-13.03 = 2
14.01-14.10 = 9	—
13.91-14.00 = 17	68 ¹

Our table shows that the norm for this series was between 13.90 gm and 14.00 gm. The average of the high weight specimens of each issue is *ca.* 14.10 gm excluding the worn coin weighing 12.64 gm.

The magistrates, symbols, and coins of this series, together with the die combinations and weights, are listed below.

Serial No.	Die No.	Weight
ΔEONΥΣ	Symbol: cantharus above horse. Legend M-A-PQN above cantharus.	
1.	1-1 a. Benson 1909, 457	14.51

¹ In the table I have not included the weight of the questionable Metrophon issue (p. 65, fig. 6).

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Serial No.	Die No.	Legend and symbol as above.	Weight
ΕΠΙ ΜΗΤΡΟΔΟΤΟ			
2.	2-2	Paris	14.00
3.	2-3	McClellan 3952, ex Hirsch XIII, Rhousopoulos, 579	13.76
4.	3-4	a. Brussels	14.03
		b. Copenhagen	14.11
5.	3-5	a. Br. Mus. Cat. 11	13.77
		b. Bement 817 ex Egger XXXIX, 147	14.17
6.	3-6	a. Berlin	14.20
		b. Hirsch XXV, 175	14.00
7.	3-7	Benson 458	14.38
8.	3-8	Berlin 27	13.79
9.	4-9	Newell ex Naville V, 1516 ex Hirsch XXXIII, 568 (XXI, 900)	13.92
ΔΕΟΝΥΣ			
		Symbol as above. The legend ΜΑΡΩΝ is placed either above the cantharus, as above, or across the back of the horse.	
10.	5-10	Berlin	13.82
11.	6-11	a. Hermitage	13.53
		b. Regling-Warren 493	14.16
		c. Berlin 28	13.73
12.	7-12	Pozzi 1042	13.03
12½.	7a-12a	Br. Mus. Cat. 10 (Fig. 4)	13.92



Fig. 4

Serial No.	Die No.		Weight
ΕΠΙ ΜΗΤΡΟΔΟΤΟ Symbol: eight-pointed star. The legend ΜΑΡΩΝ is below the horse's feet.			
13.	8-13	a. McClean 3953 ex Soth. 1900, 234	14.24
		b. Pozzi 1043 ex Bachelor 1907, 69 (Anson, III, XII, 449)	13.83
14.	9-14	De Luynes 1772 (Imhoof-Blumer 22, <i>Zeit f. Num.</i> 1876, p. 274 ff.) ¹	13.90
ΕΠΙ ΜΗΤΡΟΔΟΤΟ Symbol: crescent. Of the legend ΜΑΡ-ΩΝΙΤΕΩΝ, the first three letters are below the horse's head, the rest across its back.			
15.	10-15	Berlin 26	13.44
ΜΗΤΡΟΔΟΤΟΣ Symbol: eight-pointed star. Legend as above.			
16.	11-16	Empedocles ex H. Weber 2330, and Soth., Feb. 29, 1884, 438	14.10
17.	12-16	Br. Mus.	14.08

¹ Hereafter cited as Imhoof-Blumer with the number of the coin as given in his list.

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Serial No.	Die No.		Weight
ΕΠΙ ΠΟΣΙΔΗΙΟ Symbol: helmet. Legend ΜΑΡΩΝ above the horse's back.			
18.	13-17	Soth. 1904, 182	14.00
19A.	14-18	Newell (Fig. 5)	13.91



Fig. 5

19.	14-19	Berlin (Imhoof-Blumer 23)	13.83
20.	14-20	Bement 822, ex Ratto 1912, 558, ex Egger, 1, 7, 1908, 308	13.95
21.	15-21	Br. Mus.	

ΜΗΤΡΟΔΟΤΟ Symbol: crescent. Legend ΜΑΡΩΝΙΤΕΩΝ. The first three letters are below the horse's head, the rest above its back.			
22.	16-22	Naville XIII, 599 ex V, 1521	14.02

ΜΗΤΡΟΔΟΤΟ Symbol: wreath. Legend ΜΑΡΩΝΙΤΕΩΝ, ΜΑΡΩΝΗΙ- ΤΕΩΝ, or ΜΑΡΩΝΕΙΤΕΩΝ, either divided as above, or placed in one or two lines above the horse's back.			
23.	17-23	Br. Mus.	13.99
24.	18-24	a. Newell ex Naville V, 1519, ex	

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Serial No.	Die No.	Weight
	Hirsch XXXIII, 569, ex Hirsch XXV, 176	13.98
	b. Copenhagen	13.99
25. 19-25	McClean 3954, ex O'Hagen, 364	13.99
26. 20-26	a. Berlin 29	14.12
	b. Br. Mus. Cat. 13	13.58
MHTPOΔOTO Symbol: pointed cap. No legend.		
27. 21-27	Newell	13.84
MHTPOΔOTO Symbol: lyre. Legend MAPQNITEQN in small letters		
28. 22-28	Imhoof-Blumer 21	13.96
MHTPOΔOTO Symbol: owl. No legend.		
29. 23-29	Br. Mus. Cat. 12	13.98
MHTPOΔOTOΣ Symbol: bearded head. No legend.		
30. 24-30	a. Morgan, ex Consul Weber, 1908, 901	13.86
	b. Hermitage	13.85
31. 24-31	Naville V, 1518, ex Pozzi 1044	14.32
32. 24-32	Berlin 30, Cf. Mionnet, Supp. II, 335, 317; Eckhel, <i>Num. Vet. Anec.</i> , p. 57, Pl. V, 1	14.15
MHTPOΔOTOΣ Symbol: youthful head. MAPQNITEQN in exergue.		
34. 25-31	a. Br. Mus.	14.126
	b. Brussels	14.025

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Serial No.	Die No.	Weight
	c. Empedocles ex Bement 818, ex Hirsch XXXII, 417	13.82
	d. Hirsch XXV, 177, ex Soth. 1904, 184	14.57
	e. Sartiges 170	....
33.	25-32 McClean 3955	14.24
35.	25-33 a. Berlin 31	14.76
	b. Jameson 2017, ex H. Weber 2329	14.08
	MHTPOΦΩN Symbol and legend as above.	
36.	25-34 Beatty (plugged)	13.89
	MHTPOΔOTOΣ Without symbol and legend.	
37.	26-35 Hermitage	13.85
38.	27-36 Br. Mus. ex Bunbury 584 (Imhoof- Blumer 20; Anson, III, 450)	13.80
	MHTPOΔOTOΣ Symbol: wheel.	
39.	28-36 Hermitage	12.64
	MHTPOΦΩN Symbol: wheel.	
40.	28-34 a. Berlin 32	14.05
	b. Bement 820	13.87
	Cf. Ivanoff, 14	14.00
41.	29-37 Br. Mus. Cat. 14	14.30
42.	30-38 Manchester	14.11
43.	31-39 Hague	13.90
44.	31-40 a. Naville XIII, 600, ex V, 1520, ex Soth. 1914, Schles. y Guz. 74, ex Merzbacher 1909, 2682	14.09
	b. Newell ex Hirsch XXI, 902	
	c. Mionnet, I, 390, 170, Pl. 48, 6.	14.07

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Serial No.	Die No.		Weight
45.	32-41	a. Regling-Warren 492 b. Munich	13.94
ΕΠΙ ΑΘΗΝΕΩ No symbol. Legend ΜΑΡΩ- ΝΙΤΕΩΝ, of which the last three letters are retrograde.			
46.	33-42	Berlin	13.95
ΕΠΙ ΠΥΘΟΔΩΡΟ No symbol. Legend ΜΑ- ΡΩΝΙΤΕΩΝ in exergue.			
47.	34-43	a. Berlin	13.90
		b. Bement 821, ex Fenerley Bey, 1912, 262, ex Egger 1908, 307	13.95
		c. Soth. May 9, 1904, 183 (Anson, III, 457)	14.25
		d. Jameson 1059	14.29
		e. Br. Mus. Cat. 14 α	13.71
ΜΗΤΡΟΦΩΝ Possible forgery Symbol: wheel. No legend. Fig. 6.			



Fig. 6

a.	Berlin (Dannenberg)	12.96
b.	Berlin (Prokesch Osten)	12.56
c.	Berlin (Löbbecke)	13.53

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Serial No.	Die No.	Weight
	d. Pozzi 1045 (Naville X, 473)	13.50
	e. Bement 819	13.04
	f. Hermitage	13.18
	g. McClean 3956	13.95
	h. Munich	....
	i. Feuarent, 6, 9, 1913, 147	....

ADDENDUM

13A. Count Chandon de Brailles¹ (Fig. 7) 13.96



Fig. 7

21A. a. De Nanteuil Coll., 715¹ 14.10
b. Count Chandon de Brailles¹ (Fig. 8) 13.80



Fig. 8

¹The weights of these three coins are not included in the tables.

In our list, we find **forty-nine** die combinations (one possibly spurious) and **only** seven mint officials, from which it is clear that magistrates could serve year after year. Just as the number of magistrates is no criterion of the length of the time during which the Phoenician weight was used, so I think the symbols must be rejected as a criterion, for apparently they could be repeated, as is shown by the cantharus on the coins of Deonys and Metrodotos. It is possible that the cantharus was a subsidiary symbol having no connection whatever with the magistrates whose names appear on the coins of Maroneia, until Metrodotos or one of his colleagues conceived the idea of distinguishing each issue by the use of a special mark, the mint official's symbol of the later coins. It is even possible that the star and the crescent of Metrodotos were each used for more than one term of office (?).

The practice followed at the end of the series is clear enough, for the symbol almost certainly changed every year, even though the same official was in office. Another fact is apparent from our study of the dies. They were often shared by officials using the same symbols; and when all the data is collected, it seems to indicate that frequently two men were in charge of the mint. For the period we are studying the evidence is as follows:

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<i>Mint officials</i>		<i>Symbols</i>
Metrodotos	Deonys	Cantharus
Metrodotos	Star
Metrodotos	Crescent
.....	Posideios	Helmet
Metrodotos	.....	Wreath
Metrodotos	.....	Pointed Cap
Metrodotos	.....	Lyre
Metrodotos	.....	Owl
Metrodotos	.....	Bearded Head
Metrodotos	Metrophon	Young Head
Metrodotos	.....	None
Metrodotos	Metrophon	Wheel
.....	Athenes	None
.....	Pythodoros	None

Because of the style of the earlier tetradrachms, I have assumed that Metrodotos and Deonys minted coins in more than one year, and it is certainly possible that the early coins with the cantharus symbol should be distributed over several years. For this group of coins seven obverse and twelve reverse dies are known, a number disproportionately large for one year's issue. Consequently I am inclined to believe that the frequently changing symbol was not introduced until several years had passed.

The long career of Metrodotos at the mint is as certain as it is perplexing. In what capacity did he serve? Was he technically a magistrate of Maroneia, or was he simply a professional mint-master employed by the city? According to the

list given above, he was in office eleven years out of fourteen, and there is no certainty that he did not issue coins in conjunction with Posideios, Pythodoros, and Athenes. Another striking fact is that the colleagues of Metrodotos changed frequently and that there are many years when no colleagues are known. Who were these colleagues? Political officers, or assistant mintmasters called in to assist when the mint was most active? Is it possible that they engraved the dies? At times a new name coincides with the introduction of changes in the style of the coins, as for example in the pieces of Posideios¹, or in the unusual variety shown by the pieces of Metrophon and other late magistrates. Noe (Mende Hoard, p. 50) has shown that two artists were at work in Mende during this period, and as there are pieces in the Maroneitan series which cannot be brought into any logical scheme of chronological development, the same may be true of Maroneia, except that the second artist at Maroneia seems to have been a transient, so to speak, and to have changed from time to time.

Noe has called attention to the unique reverse Mende die which has no linear square about the grape vine, and to its resemblance to the unique Maroneia piece which shows the same peculiarity. This, by the way, is a coin of Posideios. The other specimens with the name Posideios differ

¹ Figs. 5 and 8; Pl. VIII, 18-21.

from the contemporary coins of Metrodotos in having an inartistic graceless vine with four clusters. In the same way certain pieces of Deonys do not fit into the normal scheme of Maroneitan coinage. One of them has ivy leaf punctuation which does not appear again until the next period, and the later Deonys pieces have the square vine.¹

The coins of Athenes and Pythodoros (Nos. 46 and 47) have no symbols, but it must be admitted that coins of Metrodotos show the same characteristic. The horse of Athenes is proudly stepping, not galloping, with right front foot raised high, a characteristic which appears on an interesting coin of Metrophon (Fig. 6) of which several specimens are extant. The horse of these pieces is so peculiar that its genuineness has been questioned, and to a suspicious style is added an unusual lightness which might be taken as confirming their spuriousness. On the other hand there is nothing suspicious about the fabric and the reverse is perfectly true to type. But it is to be remarked that the workmanship resembles a coin of Pythodoros (No. 47), although the latter is much better done.

One might regard the weight of the coins as decisive evidence against them, except that many of them fall within the range of the standard which followed immediately after the Phoenician. More-

¹ Pl. VII, I, 10-12. The style and weight of No. 12 are not above suspicion.

over, there is a coin of Metrodotos with wheel symbol of similar weight (No. 39) which shares dies with Phoenician tetradrachms. While this is a worn specimen, still it does not seem to have suffered enough to have brought its weight so far below the Phoenician norm, nor is it any more worn than others of the reduced weight which unmistakably belong to the new standard. It weighs 12.64. The Metrophon pieces which we are discussing weigh as follows:

13.95, 13.53, 13.50, 13.18, 13.04, 12.96, 12.56. They average about 13.20 gm, which is closer to the reduced standard than to the Phoenician which preceded. Other coins with the wheel symbol weigh 14.30, 14.11, 14.09, 14.07, 14.05, 14.00, 13.94, 13.90, and 13.87. Their average is thus 14.04. To show the divergence of standards, I list here the weights of all other specimens of Phoenician weight which are below 13.70.

No. 15	13.44 "nicht gut"
No. 12	13.03
No. 26b	13.58
No. 11a	13.53

When coins from similar, or identical, dies have an average weight lower than the average of the lightest pieces of the rest of the series, one must look for an explanation. If the coins are authentic, one must assume that the weights were lowered during the course of the year when the wheel was used as a

symbol. In that case the specimens weighing 13.95–13.50 might be the last of the old weight. In this connection, two other Metrophon pieces are to be cited, Nos. 49 and 50 of the reduced weight.¹ They both have the wheel and they are within the range of weights of the new standard. The second has the inscription MAPQNITQN beneath the horse. Except that it omits the epsilon, it resembles Nos. 34–36, and 47 in this respect, and these issues we have placed toward the end of the Phoenician series. Its weight is 11.77. The other, No. 49, is described as possibly a barbaric imitation. Not having seen the piece, I am unable to say whether it is more barbarous than the genuine Maroneitan pieces of this reduced weight, some of which are particularly crude, or whether it is another specimen of the suspected group of Metrophon pieces with the standing horse. No. 49 weighs 12.44.

Finally there is a Deonys piece with the wheel symbol, No. 51, undoubtedly genuine, of the reduced weight. Thus it is certain that the symbol was used by the mint in the period of the reduced weight; and secondly, the piece No. 50 seems to show that it was used by Metrophon immediately after the change of standards. Consequently, the weights of the suspicious Metrophon coins can not be used to discredit their authenticity.

During period II (stater of *ca.* 12.50 gm) the following conspectus shows a marked contrast to the practice of period I.

¹ See page 78 below.

Metrophon	Deonys	Metrodotos	Wheel
Herobolos ¹	Deonys	.....	None
MA— ¹	Deonys	.....	Head
Hegesileos	.....	.....	Uncertain
Brabeos	.....	.....	Helmet
Ebesas ¹	Metrophanes	.....	Astragal
No Name	.....	.....	Ivy Leaf
No Name	.....	.....	No symbol

For the first issue (symbol) we have three names, the veteran Metrodotos² and two colleagues Deonys and Metrophon. This is the last appearance of Metrodotos and Metrophon at the mint. Deonys, presumably a different man from the mintmaster who first struck Phoenician tetradrachms fifteen or twenty years earlier, was responsible for two more issues. Then we have new names, year after year, and unsigned coins, many of which were made by unskilled workmen. It should be noted that the finest of the pieces of this period has the name Metrophanes and that Metrophanes' name appears on some of the finest pieces of period III.

In period III (staters of so-called "Light Attic Weight") there is no evidence to show that in any year two men were at the mint, and it is not easy to tell whether the three varieties of Metrophanes pieces were from one or several years.³

¹ There are no die-combinations to show that these men were in office together.

² The coin of Metrodotos belongs here because of its weight, though it is linked with the Phoenician series by a common reverse die.

³ See page 60 below.

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In period IV, when Maroneia used coins of Persian weight, the evidence is conclusive that there were two officials at the mint in several years at least. I summarize it here. We begin with Athenes, the last of the officials of period III, whose colleague was Posideios, as is shown by community of symbols and of dies, both in staters and in triobols.

Athenes	Posideios	Barley Head
Callicrates	.....	Dog
Hikesios	.....	Thyrsus
Hegesagores	.....	Eagle
Apelles	Neomenios	None
.....	Neomenios	Bucranium
Choregus	.....	Fly
Choregus	.....	Owl and Fly
Polyaretus ¹	.....	Owl and Scorpion
Polyaretus ¹	.....	Owl and Turtle
.....	Patrocles ¹	Owl
.....	Patrocles ¹	Thunderbolt
Metrodorus	.....	None
Bouta	.....	Cantharus and thyrsus
Metron	.....	Plow
Metron	.....	None
Euxithemis	.....	None
Eupolis	Polynicus	Trident
Zeno	Heracleides	Trident
Zeno	.....	MA

¹ The coins of Patrocles and Polyaretus share the same dies.

In this period the names are possibly those of officials who served annual terms, and it is probable that they might serve more than one term. It is also clear that two officials were occasionally in office at the same time.

From the foregoing analysis of Maroneitan magistrates and symbols, it is difficult to formulate a general rule which will apply to all four periods. Yet I am inclined to the view that the names on the coins are those of mint officials, possibly, though not certainly, concessionaires with whom the city had made contracts for the minting of coins.¹ Since the symbols vary from time to time and are used by two men simultaneously, one might conclude that they serve to fix the year of issue. Yet Noe's hypothesis (*Metapontum*, 31-41) that the symbol marks the issue and not the time of issue is equally satisfactory if one interprets the sharing

¹ The life of Diogenes the Cynic throws an interesting side-light on the mint officials of Greek cities. His father Hikesias was a banker and dishonest moneyer in Sinope (*Rev. Et. Gr.*, 1926, pp. XLV, f.). His reputation was such that coins signed IKEΣIO could not be accepted until their purity had been tested, as is proved by many extant specimens. If Hikesias, as seems probable, held a contract for supplying Sinope with money, the situation in Sinope was similar to the one we have assumed for Maroneia; and it is not improbable that Metrodotos, the veteran moneyer of the first period was a wealthy local banker like Hikesias. In passing, one may note as an interesting coincidence that fourth century Maroneitan coins are inscribed ΕΠΙ ΙΚΕΣΙΟ. If Maroneia and Sinope were not so far apart, one might conclude that the international banking house of Hikesias specialized in mint contracts, or that Hikesias had been resident in Maroneia; but this is probably unnecessary, despite the rarity of the name.

of dies and symbols by two men as evidence that they had taken a contract in partnership to mint a specified amount of coin, for then the symbol would unite the part of the issue signed by moneyer A with the part signed by B. One might note in passing that the employment of two men simultaneously, though common, was apparently exceptional. But certainty as to the precise meaning of the symbol is out of the question, since contracts for specified amounts of coin would naturally have a time limit, and the contracts may well have been let annually.

At Maroneia the procedure may have been as follows. After the needs of the state had been determined, a contract was let for the coming year, specifying the number of pieces of each denomination to be struck. In some years no tetradrachms were struck, possibly no coins at all. In others, the need for staters may have been so great as to warrant giving the contract to two men, either jointly or separately. But such an hypothesis is not without its difficulties. Consequently, I propose it with hesitation.

Returning to our survey of Phoenician staters, we have seen that Metrodotos easily outstripped the other magistrates with his nine different symbols, counting the cantharus, but not the exceptional issue that had no symbol. Metrophon follows next with two symbols, both of which are used by Metrodotos. The other four magistrates

have one symbol each, or none at all, even though one of them, Deonys, held office possibly on two occasions. We probably have specimens from at least thirteen issues, and if we date the first piece of this series about 450, we can date the end of it about 430 without difficulty.

If we take as a criterion of mint activity the number of dies of Metrodotos with the wreath as a symbol and of the succeeding issues, particularly the coins of Metrophon with wheel symbol, we must conclude that the years from about 440 to about 430 were busy ones for the mint. This activity coincides in point of time with the period of high tribute, 438 to about 432. Before 438, Maroneia had paid only one and a half talents. During the Peloponnesian War it paid three. In the ten or fifteen before the wreath issue Maroneia used about sixteen obverse and twenty-two reverse dies. In the few years that followed to about 430 it used eighteen obverse and twenty-one reverse dies, and the period of greatest activity comes at the very end. As it ought to synchronize approximately with the years when Maroneia was paying ten talents tribute, it will be difficult to extend our series beyond 430. While there is much uncertainty in the foregoing argument, nevertheless, since there are other reasons, as we shall see, for dating the end of the Phoenician period about 430, it can be taken as merely corroborative of a conclusion reached by other means.

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Assuming for the moment that Maroneia ceased minting Phoenician tetradrachms about 430, we now turn to the standard that took its place. The weights of the twenty-four specimens known to me are distributed thus. I do not include the suspicious Metrophon pieces, which in types are like the Phoenician series, although the Metrodotos wheel coin of this weight and two Metrophon wheel pieces are included.

<i>Weights</i>	<i>Number of specimens</i>
12.80-12.95	4
12.64-12.70	2
12.43-12.51	6
12.19-12.32	8
11.27-11.77	4

The mint officials and symbols found on the coins are these:

Serial No.	Die Nos.	Weight
MHTPOΦΩN Symbol: wheel. No legend.		
49.	1- 1 Hirsch XXV, 178 (Not illustr. 'Barbaric imitation.' Hirsch)	12.44
MHTPOΦΩN Symbol: wheel. MAPΩNITΩN beneath horse.		
50.	2- 2 Stiftestschotten 1513	11.77
ΕΠΙ ΔΕΟΝΥΟΣ Symbol: wheel. No legend.		
51.	3- 3 <i>Rev. Num.</i> , 1920, Pl. V, 3	12.25

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Serial No.	Die No.		Weight
ΕΠΙ ΔΕΟΝΥΟΣ No symbol and no legend.			
52.	4- 3	a. Egger XXXIX, 153	12.25
		b. Egger XXXIX, 154	11.27
		c. Berlin	12.48
ΔΕΟΥΝΥΣ Symbol: bearded head. No legend.			
53.	5- 4	Berlin	12.86
ΗΡΟΒΟΛΟΣ No symbol and no legend.			
54.	6- 5	Newell	12.43
ΒΡΑΒΕΩΣ Symbol: helmet. No legend.			
55.	7- 6	a. Brussels	12.70
		b. Imhoof-Blumer 24	12.25
		c. Hoffman Sale	12.82
ΗΓΗΣΙΑΕΩΣ Symbol uncertain. No legend.			
56.	8- 7	Imhoof-Blumer 25 (worn)	12.20
Η-ΒΗ-ΣΑ-Σ Symbol: astragal. Kerykeion on reverse between letters H and B. No legend.			
57.	9- 8	a. De Luynes 1777	12.50
		b. <i>Num. Chron.</i> , 1841, 110, Borrel Coll.	12.48
ΜΗΤΡΟΦΑΝΗΣ Astragal on reverse. No legend.			
58.	10- 9	Vienna, ex Egger, XXXIX, 152	12.21

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The following coins have MAPQNITEQN in place of the magistrate's name about the reverse square.

MAP-QN-ITE-QN Symbol: head. Legend MA.

59. 11-10 Egger XXXIX, 151 (Not illustrated) 11.66

MAP-QNI-TEQ-N Ivy leaf on reverse.

60. 12-11 Egger XXXIX, 150 12.32

MAP-QN-ITE-QN No symbol.

61. 12-12 Br. Mus. Cat. 14 β 12.95

62. 13-13 Br. Mus. ex Bunbury Coll. 12.80

62A. 14-14 McClean 3962 (Plate X) 12.19

NMA-PQ-NIT-EQ No symbol.

63. 15-15 a. Br. Mus. 12.50

b. Egger XXXIX, 148 12.27

c. Egger XXXIX, 149 11.46

64. 16-15 Mionnet, I, 390, 172, Pl. XLVIII, 5

While this group of coins follows without a break the tetradrachms of Phoenician weight, both in style and fabric, there are peculiarities to be noted. Several specimens give merely the name of the city, not that of the mint official which is found regularly on coins of Persian and Phoenician weight. On the staters of about 16.20 gm, both names appear around the linear square of the reverse, and in the Phoenician series it was not uncommon for the name of the city to appear in part or in full on the obverse. On one of the Metrophon pieces of the new weight it so appears. There may be nothing significant about the absence of the offi-

cial's name, but the fact is so unusual that it calls for comment and explanation if possible. If the names are actually those of magistrates, it may not be too far-fetched to ascribe the peculiarity to democratic reforms which denied to magistrates the glory of placing their names on coins where the name of the community belonged. Even where magistrates' names are given on coins of this series, they give the impression that the war had somehow affected the politics of the city. Instead of finding the same name year after year as in the preceding series, we have a rapid succession of magistrates in a manner characteristically democratic, and instead of having the old names like Metrophon and Metrodotos we seem to see new men in positions of responsibility, just as would have happened if the power of the aristocratic families had been destroyed by some democratic upheaval supported by Athens.

The vine of this type is less stocky and more twisted than on specimens of Phoenician weight, although McClean 3955, Rev. No. 32, is readily recognized as its forerunner, whereas the vines of the Persian weight coins have little in common with their fifth century predecessors. Some of our group resemble Phoenician tetradrachms in having two or three dots after the name. Some have more elaborate punctuation, an ivy leaf or astragal. Several, likewise, have either a dotted or linear circle about the obverse type, another character-

istic of the Phoenician series. But while there are variations as to details among the specimens of our series, the general similarity to the preceding series is evident, and taken together they form a class by themselves both as to weight and style.

The heaviest coin I have discovered of this series weighs 12.95 gm, so close to coins which are unmistakably of the Phoenician period that it might have been considered a worn or light-weight Phoenician stater, were it not for its being a very well-preserved and typical specimen of the new series with twisted vine and city name about the linear square on the reverse.¹ Since many others are badly worn, it is not at all strange that their peculiar weight went unnoticed. Yet the proportion of coins that fall within a narrow range of weights is very large. Of the twenty-three specimens, fourteen range between 12.19 gm and 12.51 gm, and since three of these specimens have duplicates of different weights, we can readily establish an approximate range for the series. For example, the heaviest of the three specimens of No. 63 weighs 12.50 gm, the lightest only 11.46 gm. Likewise the three specimens of No. 52 weigh 12.48 gm, 12.25 gm, and 11.27 gm. Thus the light-weight coins of this group are hardly distinguishable by their weights from the

¹ *B. M. C. Thrace*, p. 234, No. 14 β; Pl. XI, No. 61 of this monograph. Mr. Robinson, of the British Museum, thinks there is no reason for considering this a plated coin, even though the editors, misled apparently by its weight, described it as possibly plated.

Persian staters of Maroneia, the heaviest of which weighs 11.50 gm.¹ It should be noted here that reverse No. 3 is found joined with obverses 3 and 4. No. 51 also weighs 12.25 gm, thereby confirming our conclusion that the very light coin belongs to the series.

The specimens that rise above 12.51 gm are few. There are three specimens of No. 55, one of which weighs 12.25 gm, the other 12.82 gm. An unpublished coin in the British Museum, No. 62 weighs 12.80 gm.

As for the names of the magistrates, Metrophon, Metrodotos, and Deonys are found on coins of the preceding period. Metrophanes appears again in the next period. The others appear only in this period. While Metrophon and Metrodotos were in office at the very end of the Phoenician period, Deonys is found on coins widely separate in point of time, for the first Phoenician tetradrachms, struck probably about 450, bear that name. Thus we may assume that the Deonys of our period is a younger man.

In one notable respect, our tables show a difference between the Phoenician period and its successor. The mint was much less active than it had been, as we may surely infer from the use of fewer dies and the scarcity of specimens now known. About half of the specimens and the same proportion of dies were not known before the discovery

¹ No. 150d.

of a hoard about 1912.¹ Making allowances for losses, we could date the end of the series about 415, if we should take 430 as the approximate date for its beginning, and as Athens suppressed the coinage of silver in the subject cities about 415, the date has intrinsic probability. In that case the succeeding standard may have been introduced as a result of the disturbances on the Thracian coast between 411 and 408, instead of after the disruption of the Athenian Empire following Aegospotami. Nevertheless there is a crudeness about the last of the Athenian tridrachm staters which seems to indicate haste at the mint, and I am inclined to think that coinage was resumed for a short period between 411 and 408 by a rebellious Maroneia. It would then be suppressed when Athens reasserted her authority. When next Maroneia struck coins, soon after Aegospotami, the types and the weights make a clear-cut break with the past.

Having tentatively established a date for the end of our series, we can return to the date of its introduction. Here again the discovery of the hoard provides valuable clues, for it contained as many Abderitan as Maroneitan pieces. While some of the Abderitan coins are not described in the

¹ Egger, XXXIX, 127-132, 134, 148-154. I am indebted to the courtesy of this firm for the information that they were bought in one lot at Drama. Because of their uniform condition, as shown in the published specimens, they seem to be unquestionably from a hoard.

Berlin Corpus and new magistrates for this period are found on coins of the hoard, we can use the Berlin Corpus as a guide. The Abderitan coins in the hoard follow the same standards as those of Maroneia, and as Strack has dated the introduction of the new standard (*ca.* 12.50 gm) at Abdera about 425, there can be no question that the Maroneitan series belongs to the period of the Peloponnesian War. But Strack has connected the change in standard at Abdera with the rise of the Odrysian power and the consequent reduction of the Abderite tribute, which he has dated erroneously in the first years of the war instead of in 432 or before.¹ Consequently, his sole concrete reason for choosing the approximate date 425 instead of 430 does not exist. Head, for stylistic reasons I presume, preferred the earlier date, and von Fritze states that this class of Abderitan coins, being directly influenced by the second bloom of Phidian art, dates in the last third of the century, and he accepts Head's date 430.²

Although the standard is peculiar, I shall try to show that it is a variety of Attic and that it may be connected indirectly with the rise of the Odrysian power. If either of these hypotheses is correct, we ought to date the adoption of the new standard in the first years of the war when the position of Athens had been strengthened by the alliance with

¹ *Op. cit.*, pp. 9 ff., 38 ff. See note p. 33, *supra*.

² Head, *Hist. Num.*,² 254 f.; von Fritze, *Ant. Münzen Nord-Griech.*, pp. 22 f.

Sitalces. After the accession of Seuthes in 424 and the campaigns of Brasidas, the weakening of Athens would have militated against a voluntary adoption of the Attic standard. Nor would it be explicable through Odrysian influence, for Seuthes was antagonistic to Abdera. The approximate date 430 applies with equal force to Maroneia, for the evidence of the hoard, the style and fabric of the coins themselves, and historical probability all require us to give approximately the same dates to the Maroneitan and Abderitan coins of this denomination.

We must now consider the character of the standard and some explanation of its weight that will account for its adoption.

Strack has argued that the impoverishment of Abdera due to the growth of the Odrysian Empire was responsible for the reduction in the weight of its staters to about 12.50 gm,¹ but he was unaware of the fact that Maroneia also was using this standard during the Peloponnesian War. Professor Gardner, on the other hand, connects the use of the standard by Abdera, Aeginetic as he calls it, with the revolt of the Thracian coast between 411 and 408.² The sporadic appearance of the standard so far from its natural habitat would then be explained by the presence of Peloponnesian sailors in the rebellious cities. They could now be paid in a currency of familiar weight.

¹ *Op. cit.*, pp. 9, 41.

² *Anc. Coinage*, 279. Professor Gardner is speaking only of Abdera's use of this standard.

But the latter explanation is unsatisfactory in that it requires us to assume the adoption of the standard after 411 both at Maroneia and Abdera, whereas Maroneia probably adopted another standard almost immediately afterward. Furthermore, the long list of magistrates found on the so-called Aeginetic staters of Abdera indicates a period of about twenty-five years' duration.¹ As it was followed by the Persian standard about 400,² it is

¹ Moreover, there were two periods of three or four years each, 414-412 and 408-405, when the Athenian monetary law would have prevented the issue of coins.

² Strack's table, *op. cit.*, p. 33, states that there are twenty known eponymous magistrates for the period 425-400. Collation of this with other tables on pp. 34 ff. and with the text shows discrepancies, and as new material is now available it seems best to make a fresh count. We begin with the undisputed 14 issues of tetradrachms given in table I, page 34, adding to them Echebrates, because of the weights of No. 77 and of two other specimens with this name (one probably from the Egger hoard), both weighing 12.15, only one of them listed in the Sale Cat. XXXIX, 126. A second name, Anaxipolis, should be added on the strength of the weights of his coins in the hoard, 12.89 gm, 12.46, Egger, XXXIX, 130, 131, and 12.38 (unpublished). An Anaxipolis was also magistrate during the preceding period, Strack, Nos. 69, 70. Of the magistrates not yet counted whose names are found only on drachms, Athenes and probably Philaios may be assigned to the period 425-400. Thus unless we add two anonymous issues of triobols, it will be impossible to find twenty annual issues, and surely it would be rash to say that the unsigned triobols were not issued by one or the other of the magistrates we have already counted, if they were actually issued in this period. In the same way it is difficult to see how Strack figured to get a total of 23 issues for the period 450-425. His tables on pp. 34 f. give 18 issues of tetradrachms, one of didrachms. To this number we may add a new magistrate, Pythagores, Jameson, 1999, two drachm issues, Iromnemon and Nymphagores, and a tetradrachm

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issue Strack No. 85 which was excluded from Strack's table because of peculiarities either of weight or style. Finally Archagores, Strack, No. 89, because of weights, belongs here. For the two periods a minimum number of known issues is 42, omitting with Strack No. 64 as suspicious and the anonymous triobols. This is less than Strack's total of 43, although we have added two issues. I follow Strack, who assumed from the change of symbols that two persons by the name of Anaxipolis held office during this period, although in the case of Protes in the period 425-400, such a contingency was excluded in his table of weights. Even granting a second term for Protes, despite the new names, his totals were apparently high.

On the evidence of the hoard and of weights and style it seems as though the chronological sequence of magistrates at the time of the change of standards can be established.

Archagores No. 89, is in style, a transition magistrate, but the weight of his issue places it definitely before the reduction. Under Hegesagores the change of weights was effected, for one of his pieces, No. 78, 4, weighs 12.85, although the others range between 13.70 and 14.80 gm. No specimens of these magistrates or of Phoenician weight were in the hoard.

The next magistrate was possibly Echecrates, for in style his coins resemble those of the preceding period. Two specimens of his issue were in the hoard. The other magistrates represented in the hoard are as follows:

Myrsos, (like Strack, 101, 3)	12.40	Egger, XXXIX, 127
Dionysas, four specimens, wts.	12.70	" " 128
(not from same dies as Strack, 90)	12.01	" " 129
	11.68	Unpublished
	11.85	"
Anaxipolis	12.89	Egger, XXXIX, 130
	12.46	" " 131
	12.38	Unpublished
Euagon (not same dies as Strack, 91)	11.88	Egger, XXXIX, 132
Orchamos (Cf. Strack, 87)	6.13	" " 134
	5.88	Unpublished
	6.90	"

These didrachms or "*Not Tetrachms*" of Orchamos have been

difficult to date the first use of the misnamed Aeginetic standard after 425.¹ Consequently, Peloponnesian sailors had nothing to do with the use of this peculiar weight in Maroneia and Abdera.

Nor is Strack's explanation any more satisfactory, for it ignores the question of exchange. Why should a city which had been using a standard obviously no longer suited to the needs of commerce—the Phoenician standard was gradually receding on the Thracian coast during this period—adopt another equally unsuited? If the standard

assigned by Strack to the period 450 to 425, and yet in weights the majority of them are clearly halves of the stater used after 425, and the presence of several specimens in the hoard seems to confirm this date. The only suspicious element is the weight of one unpublished specimen (6.90 gm) kindly supplied by M. Egger, which seems rather to be a Phoenician didrachm.

Two triobols of Protes were in the lot, like Strack 129.

That the hoard contains early issues of this period is shown by the fact that the pieces pictured by Egger, with one exception, have a linear square either about the legend or about the type, a characteristic which the majority of issues illustrated by Strack do not possess. Thus the hoard enables us to revise our ideas as to the first few years of the new standard, and in so doing the criteria by which the issue of Orchamos was assigned to the period 450–425 lose their validity. Practically every detail of the coin finds a parallel in the issues of the period 425–400. Moreover, the name of the city appears on the obverse only once in the period 450–425, while it was regular to place it on the coins, either complete or abbreviated, in the period to which we assign the issue.

¹The same argument holds good for Maroneia, except that here we have two standards preceding the adoption of the Persian about 395. Judging from types, magistrates' names, and symbols, we probably have specimens of at least twenty issues of so-called Aeginetic and Light-Attic weights. Thus it is impossible to begin the Maroneitan series after 411.

was to be lowered merely because of growing poverty, why not lower it to the point where it would work well with the so-called Persian triobols which Abdera had been using since about 440? The new standard was neither suited for trade with countries where the Phoenician standard was used, nor with countries where the Persian stater formed the chief currency.

Moreover, it is wrong to think that the Persian standard was coming in on certain lines of trade, as has been stated on the evidence of the growing use of so-called Persian triobols. Since Persian triobols used by Aenus, Abdera, and Maroneia from about 440 were nothing but Attic tetrobols, as will be made clear later, the north-west Aegean was still dominated by the Attic standard, or to put it more accurately, up to about 411 the Attic standard was growing in use in this region, while the hitherto prevalent standards were declining. Thus we ought to explain the choice of the new weight in the same way that we explain the rejection of the old. The popularity of the Attic standard had made the use of the Phoenician stater unsatisfactory. It also dictated the choice of the new weight, an Attic tridrachm. In other words, Abdera and Maroneia, without raising the weight of their staters, had found a way to accommodate their coinage to that of Athens in a manner acceptable to a people accustomed to division and multiplication by three.

It is even doubtful whether poverty explains the failure of Abdera and Maroneia to adopt the Athenian form of the standard with its tetradrachm as the major denomination, for Maroneia was relatively more wealthy than she had been when she first struck tetradrachms; but compared with Abdera, whose tribute was ten talents a year in 430, Maroneia was poor. Furthermore, the poor Maroneia with her paltry three talents tribute was able after a short period of experimentation with the stater of about 12.50 gm to increase her stater to about 16.20 gm.

While the weight of the staters of about 12.50 gm rarely reaches that demanded by an Attic tri-drachm, nevertheless there is apparently no other satisfactory explanation, especially as transplanted standards frequently were lower than their prototypes. Certainly the tendency was not upward. Thus, we have further reason for refusing to consider the Abderite stater of about 12.50 gm Aeginetic. It was as much too high for Aeginetic as it was low for Attic. The latter variation, however, is explicable.

It is difficult to tell whether the adoption of this peculiar variety of the Attic standard was due to the determination of Athens to make her standard supreme in the Aegean, or whether expediency was at the basis of its spread on the Thracian coast during the first years of the Peloponnesian War. Strack thinks that the uninterrupted Abderitan

coin series proves that the Athenian monetary laws were never enforced there.¹ Nevertheless, an interruption such as the law would have entailed would be difficult to detect, if it were of short duration, as I think it was.

Although this is not the place to discuss the laws, it is necessary to ascertain their bearing on the problem of Maroneitan coinage, and in doing so, to determine their probable date and scope.² That there were two of them is clear from the second which makes a reference to a previous law that went by the name of Clearchos. The law of Clearchos imposed certain penalties for offenses the nature of which we can only conjecture. The second law forbids the cities of the Empire to strike money of silver and to use any but Athenian weights and measures. Now the date of the second law, since it forbids the coining of money, is of first importance to our discussion. Because of a resemblance in procedure to the assessment decree of 425-4, the most recent editors of the law have suggested that the decree was passed during the Archidamian War.³ Before the recent discovery of

¹ *Op. cit.*, p. 8, note 5.

² For the laws, see *I. G.* XII, 5, 480; Ditt., *Syll.*,³ 87; Weil, *Z. f. Num.*, XXV, 1906, p. 52; XXVIII, 1910, p. 351; Babelon, *Traité*, II, 3, 26 ff.; Hiller von Gaertringen and Klaffenbach, *Z. f. Num.*, 1925, 217-221; Wilhelm, *Anz. d. Wien. Akad.*, XXXV, 1924, 157 ff.; Χαβιαράς, 'Αρχ. 'Εφ., 1922, pp. 39-41; Romstedt, *Die wirtschaftliche Organisation d. Athen. Reiches*, pp. 14-21.

³ See *Z. f. Num.*, XXXV, 217 ff.

a new fragment of the law, there was a tendency to date it about 415-4 on the strength of a passage in the *Birds*, 1040 f., which clearly refers to it. This play was produced in the spring of 414. It is difficult to believe that a law ten years old would have been the subject of an Aristophanic jest, and consequently despite the dative forms and the similarity with the assessment decree of 425-4, the later date seems preferable. The very fact that Aenus, Maroneia, Abdera, and Thasos were striking coins without any interference from Athens during the period from 425 on, ought to arouse skepticism with regard to the earlier date. It would require us to assume that the cities where coinage was still flourishing were not subject to the law, or in other words that the law applied only to the cities within the empire which had practically ceased to strike money at all. Moreover, the tetradrachms of Mende show that there was no prohibition of coinage before the time of the revolt, and the drachms struck at Mende not long after her recapture by Athens confirm the later date for the second law. (Cf. Noe, *Mende Hoard*, 53 ff.)¹

On the other hand, if we date the law in 415-4, the interruptions would be of short duration, from about 414 to 412, and again from about 408 to 405, for it goes without saying that cities like Abdera and Maroneia were not slow to resume coinage

¹ Mende also used for a short time a stater weighing about 12.50 gm. The pieces illustrated by Noe, Pl. X, E and F, weigh 12.28 gm and 12.32 gm. But they seem to be a few years later than the end of the Maroneitan and Abderitan series.

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when the restraining hand of Athens was absent, first at the time of the general revolt of 412-1, and secondly when the empire finally disintegrated. Such interruptions would be difficult to detect even within a series, and if a break coincides with a change of types or of standards, it would be almost impossible to discover from the extant coins whether there had been any cessation of coinage at all.

Yet the unusual number of changes in type and standard that we have met with on the Thracian coast may be the result of the operation of the law. There was a change in both types and standards at Aenus, dated by Strack in 412, and the Thasian coinage was reformed at the time of its revolt. At Abdera the new standard appears not far from the turn of the century, and at Maroneia about ten or fifteen years after the adoption of the tridrachm Attic stater, this was superseded by a new standard with new types.

One can easily rearrange the coinage of Abdera to suit this hypothesis.

	<i>No. of years</i>	<i>No. of magistrates known</i>	<i>Standard</i>
478-456	23	17 ¹	Phoenician
455-431	25	23	"
430-415	16	19	Attic tridrachm
414-412	No coinage		
411-408	4		
408-405	No coinage		
404	Persian standard adopted.		

¹ The figures in this column are taken from Strack's table as revised, p. 87, note 2 *supra*. I assign Orchamos to the years 430-415.

It is evident from the foregoing table that a date as late as 425 for the beginning of the new standard is out of the question. For some reasons it might be preferable to shift our dates upward a trifle so that we can assign the adoption of the Persian standard to the years of the revolt. I make this suggestion because in Strack's period VI, dated by him between 400 and 390, there is an abrupt change of types which might very well coincide with the reopening of the mint after a period of Attic suppression. We should then date the introduction of the tridrachm Attic stater just before the outbreak of the Peloponnesian War, and it might coincide in point of time with the adoption of an economic policy by Athens which found expression in the Megarean decree.

As for the law of Clearchos, nothing definite about it is known. Nevertheless, since the second law forbade the minting of silver, one may infer with some probability that the law of Clearchos did not prohibit coinage.¹ It is tempting to assume that its purpose was to prohibit the use of standards

¹ This conclusion is inevitable whether we date the second law in 415 or in 425. If it must be dated in 425, the abundant coinage of Mende before her revolt is clear proof that the law of Clearchos did not prohibit coinage. One may conclude from the Mendean series of tetradrachms that the second law does not much antedate Mende's revolt in 423, and from the Mendean drachms, Noe, *Mende Hoard*, 53 ff., that it was not passed until several years thereafter.

other than Attic by the mints of the empire. In that case it might be possible to date the law about 432 and to interpret the peculiar tridrachm standard in Abdera and Maroneia as an attempt at conformity. We have seen Thasos using a didrachm stater about this time, and the small change of Maroneia and Abdera was also based on the Attic standard.

Whatever the direct cause of the adoption of this variation of the Attic standard, it was in general accord with the monetary tendency of the region. Even the interior was not slow to see the advantages of a currency of the popular Attic weight. The Attic tetradrachms of Sparadocus and the didrachms of Seuthes furnish illustrations of this tendency.

It would take us too far afield to analyze the coinage of Sparadocus and to discuss the various theories which have been proposed to account for the types of his coins.¹ None is entirely satisfactory, and the matter needs further study. In my opinion Sparadocus, the brother of Sitalces, and the father of Sitalces' successor, Seuthes, lived about the middle of the fifth century. He probably struck coins as an independent or semi-independent

¹ Cf. Head, *Hist. Num.*,² 282; Gardner, *Anc. Coinage*, 272; Gaebler, *Z. f. Num.*, 1925, 200; Casson, *Macedonia*, pp. 196 f., 207 f., Pl. 71; B. M. C. *Thrace*, p. 201; von Sallet, *Beschreibung*, I, p. 328; Pozzi, 1153-1155; *N. C.*, 1891, pp. 118 f., Plate IV, 7; Hirsch, XIII (Rhousopoulos), 717-9; Hirsch, XXV, (Philipsen) 266-7; *Rev. Num.*, 1911, p. 298; Jameson, 1073.

ruler of one or more Paeonian tribes between Macedonia and the Odrysian Empire, attached possibly to the latter by an indefinite bond. His seat may have been near the Strymon River. He struck staters ranging from 16.20 gm to 17.00 gm, and fractions of the stater divided by four and twelve, drachms and diobols as they may well be called, although very light for the standard. The range of the drachms, 3.79 gm–3.95 gm, is not far distant from that of certain contemporary Neapolitan pieces, which may originally have been intended to serve as thirds of the local stater. Of the cities in this region that were committed to the Attic standard, only Acanthus struck quarter staters, and comparison shows that they were heavier than the pieces of Sparadocus. The diobol was more common, especially after its adoption by Aenus, Abdera, and Maroneia, and it was also more in accord with the local custom of division by three. But on the whole, the coins of Sparadocus show a certain eclecticism in denominations, as in types, which makes it difficult to explain the source from which his coinage was taken.

Seuthes, Odrysian King after 424, struck drachms (4.01 maximum) and didrachms (8.60 gm). It is difficult to see what purpose was served by the use of didrachms, unless Thasian and Neapolitan influence was responsible, yet the drachm seems rather to have come from eastern Thrace. Drachms of light Attic weight were struck at Aenus during the

second half of the fifth century and in Selymbria about the time when the Odrysian power began to spread. The types of Seuthes, Thracian horseman on the obverse, and the unique inscription on the reverse, show clearly that he was copying no Greek models. When both types and weights are taken into consideration, it seems to be clear that Seuthes, and the semi-Odrysian Sparadocus as well, like the fourth century dynasts who used the mint of an inland town Cypsela,¹ had mints located somewhere in the interior. They would thus have been free to recruit die-engravers from the mints of neighboring Greek cities and to choose types to suit their economic needs and individual artistic preferences. The denominations struck by the two dynasts illustrate clearly how an old standard in new surroundings is modified by the economic needs and customs of those who adopt it. Both the didrachm and the diobol were denominations unknown to Athens in this period, though not unexampled on the Thracian coast. Thus the modification of the Attic standard (Attic tridrachm) that appears at Maroneia and Abdera, though more peculiar, finds its parallel in a neighboring coinage. Division and multiplication by three was apparently ingrained in the numismatic instincts of these towns. I know of no other explanation for the use of the tridrachm stater. That it was a tridrachm stater is evident

¹ Imhoof-Blumer, *Mon. Grec.*, 51-53; *Griech. Münzen*, 6 f.; cf. Plate I, M, *infra*.

also from the fact that the next change at Maroneia also resulted in the use of a tridrachm stater, this time of Persian weight.

Our study of the change from the Phoenician tetradrachms to Attic tridrachms would not be complete without some reference to the contemporary fractional currency of Maroneia. The tendency of the Thracian coast in the second half of the fifth century was away from drachms, *i. e.*, quarter staters, whether of Attic or of Phoenician weight. Instead, nearly all of Maroneia's neighbors were using tetrobols of light Attic weight (Persian hemidrachms). Abdera, shortly before 430, had struck small coins of about 2.82 gm,¹ while those of Aenus were slightly lighter, 2.76 gm.² Dicaea, near Abdera, had also adopted this denomination.³ With the tetrobols of about 2.80 gm, diobols were used, a denomination that makes up the bulk of the extant coins of Sparadocus, although both he and Seuthes, along with Aenus, struck coins of quarter stater weight.

It has been thought hitherto that the coins I have called tetrobols were Persian hemidrachms and indicated growing trade with Asia Minor.

¹ Strack, *op. cit.*, 36. The scarcity of issues which can be assigned to the period 450-425 makes it seem probable that the adoption of this denomination took place at the end rather than the beginning of the period. Certainly it does not antedate 440.

² *Ibid.*, 151.

³ *B. M. C. Thrace*, p. 115, No. 4; von Sallet, *Beschreibung*, I, p. 165, No. 3; Pozzi, 1062.

Several points are to be urged against this view of the origin of these coins on the Thracian coast. They were first adopted, so Strack thinks, at Abdera,¹ the farthest of the Thracian cities from Asia, and the weight there used showed the Persian standard in a high form. As a matter of fact fractional coins usually do not reach the weight demanded by the standard to which they belong. Thus while these small coins would be heavy as Persian hemidrachms, they would be about right for Attic tetrobols. Because the staters of Aenus followed the light Attic standard, Strack realized this was true for Aenus.

A further reason for thinking the Abderitan coins were Attic tetrobols is the date at which they were struck. Minted as early as 440 (450 according to Strack) they would fit into the Attic standard, then extending its sway over the Aegean, and since they conform to the Thracian practice of dividing by three, their appearance at Abdera is natural. On the other hand, if they had been first minted toward the end of the century when the Attic standard was receding, the same coins would probably be Persian. So much depends upon circumstances.

In view of the popularity of the Attic tetrobols and diobols, one may ask whether Maroneia had conformed to the practice of her neighbors in this respect as well. Having seen no discussion of the

¹ I am inclined to think that they were first struck between 440 and 430 at Abdera and Aenus almost simultaneously.

question as to what denominations were being used in Maroneia during the last third of the century, I have tried to classify according to dates the chief fractional currency of Maroneia. Drachms of the old Phoenician standard which can be dated with any probability about 430 are very rare. Moreover, there was a reduction of these drachms until they reached the weight of a quarter of the Attic tridrachm stater. Whether coins weighing about 3.20 gm¹ continued to be minted under the new standard is very difficult to say. There are so few of them. Even the coins with the older type, ram's head, were scarcely higher in weight.²

In types there is no break, however, between the last drachms weighing about 3.20 gm (Plate XVI, 161) and the first of the Attic tetrobols, ca. 2.80 gm (Plate XVI, 162a). They have the bunch of grapes and the fore part of a horse both before and after the reduction in weight, and except for weight, the first of the new weight is hardly distinguishable from the last of the old.³ There are three possi-

¹ *B. M. C. Thrace*, p. 125, 18, 19; Naville V, 1517; H. Weber, 2336; McClean, 3963, Pl. 144, 15.

² *B. M. C. Thrace*, p. 234, No. 9 β; von Sallet, *Beschreibung*, I, p. 176, 12; Hirsch, XIII, 576.

³ von Sallet, *loc. cit.*, 13. McClean, 3963 (Plate 144, 15) is exceptional, being the only specimen of higher weight (3.27 gm) which has an inscription. The letters Ω-P on the obverse are possibly to be interpreted as the last of the abbreviation M-A-P-Ω, written counter clockwise about the half-horse. Cf. A-Θ-N, E-Υ-II, on Maroneitan tetrobols, and E-B-P-Υ on coins of Hebryzelmis.

bilities as to the date of the last drachms of reduced Phoenician weight (ca. 3.20 gm), first, that they coincide in point of time, as they do in weight, with the reduced stater of *ca.* 12.50 gm;¹ second, that the Attic tetrobol (*ca.* 2.80 gm) was introduced with the Attic tridrachm. The third possibility would allow us to assume that the Attic tetrobol replaced the slightly heavier drachm in the middle of the period when the Attic tridrachm stater was being minted. In other words, Maroneia minted a few quarter staters of the Attic tridrachm standard and then discontinued the denomination in favor of one which would have a wider currency.

The first assumption has certain advantages. Staters and quarter staters would have provided a well balanced system, and there would have been no stater about four and a half times the weight of the chief smaller coin, as there was at Abdera and as there would have been at Maroneia if Attic tetrobols and tridrachms were minted contemporaneously. Furthermore, the introduction of the coin of about 2.80 gm at the same time as the Persian tridrachm, *ca.* 404, would be explicable, for the small coin, which we may now call a Persian hemidrachm, would be one-sixth as heavy as the stater.

There are reasons, however, for rejecting this solution of the problem. The coins weighing about

¹ To make the correspondence perfect, the stater should weigh *ca.* 12.80 gm.

3.20 gm are as few as those weighing *ca.* 2.80 gm are plentiful, and it would seem as though the large number of issues of the latter make it necessary to assume that they were minted from about 430. There are two main varieties, those with magistrates' names in full, with shallow fourth century incuses, and those which have only abbreviations or no names at all.

The first class can be dated more or less precisely, for the names which are found on this group of triobols are in general the same as those which appear on Persian staters. A study of the Persian staters shows that Athenes and Posideios were the first magistrates to issue coins of this weight. Moreover, they share obverse dies and were possibly colleagues. They seem also to have shared obverse dies in the extant triobols, and these triobols judged by style and fabric, together with one of Metrodoros¹ (Hunter, p. 380, No. 7) are the first of the series to bear the full magistrates' names. Thus the first use of the full name on the smaller coins cannot be later than the adoption of the Persian stater. Moreover, a fairly large proportion of the magistrates who struck staters also struck triobols. They are Athenes, Posideios, Zeno, Noumenios, Eupolis, Metrodoros, and Heracleides. Only one name, Aristoles, cannot be identified with a magistrate known from the staters. Since this group of

¹ Possibly this Metrodoros was the official whose name appears on a Persian tridrachm.

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coins forms a homogeneous unit with the Persian staters, the triobols with and without initials must antedate the adoption of the Persian standard.

They have incuses which leave little question as to their fifth century date. Some of them have symbols together with initials, others initials alone, others merely the abbreviated name of the city. The coins which have neither symbol nor magistrate's name resemble some of the Attic tridrachm staters, and they are probably contemporary with them.

To the list of chief varieties which follows, I have appended references to representative coins, including those which are illustrated on Plate XVI.

Serial No.		Weight
	Without inscription	
162	a. Hermitage	2.60
	b. Berlin	2.56
	c. Naville XIII, 604	2.81
	M-A on reverse	
163	Br. Mus. Cat. 29	2.72
	M-A on obverse	
164	Br. Mus. Cat. 35	2.89
	H-P on obverse, M-A on reverse	
165	a. Berlin	2.47
	b. Br. Mus. Cat. 33	2.53
	c. Imhoof-Blumer 17 ¹	2.70

¹ Zeit. f. Num., III, 1876, p. 283.

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Serial No.		Weight
	H-P on obverse, MAPQNI on reverse	
166	a. Berlin	2.36
	b. Egger I, 7, 1908, 310	2.67
	P-A on obverse, M-A on reverse	
167	Hirsch XIII, 588 (Not illustrated)	2.63
	Π-(?) on obverse, M-A on reverse	
168	Paris	2.80
	EYΠ ¹ on obverse, M-A on reverse	
169	Newell	2.78
	AΘN ¹ on obverse, M-A on reverse	
170	a. Newell	2.56
	b. Br. Mus. Cat. 30 α	2.83
	c. Paris	2.92
	AΘN on obverse, MA and cantharus as symbol on reverse	
171	a. Hermitage	2.86
	b. Hunter, p. 380, 5	2.55
	MHT on obverse, M-A and ivy leaf symbol on reverse	
172	Berlin	2.62
	KA on obverse, MA or M-A and cantharus as symbol on reverse	
173	a. Noe	2.40
	b. Regling-Warren 494	2.76
	c. Egger XLVI, 251	2.63

¹ The coins of Hebryzelmis, reading E-B-P-Y counter-clockwise, may be cited as parallels for reading AΘN rather than ANΘ, and EYΠ rather than EΠY.

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Serial No.		Weight
	Π-Λ on obverse, MA and rhyton as symbol on reverse	
174	a. Berlin	2.47
	b. Jameson 1062	2.90
	ΜΟΛ-Π-Ο on obverse, ΜΑ-ΕΠΙΙ or Μ-Α-Ε-ΠΙΙ on reverse	
175	a. E. P. Robinson	2.69
	b. Hermitage	2.47
	c. Bement 826	2.87

The identification of the magistrates who struck these coins is for the most part impossible, but it is probable that HP is ΗΡΟΒΟΛΟΣ or ΗΡΟΦΙΛΟΣ,¹ and MHT either Metrodoros or Metrophanes. Possibly ΑΘΝ is Athenes. Except for ΗΡΟΒΟΛΟΣ, these are magistrates who struck Persian tridrachms. The other initials cannot be made to fit any known magistrate of the period 430–395.² When we add the issues of the unknown magistrates to the separate contemporary issues of staters, assuming that they were struck in years when no staters were issued, or that the staters have not been preserved, we reach a date not far from 430 for the introduction of this denomination. In other words it was probably contemporary both with the Attic tri-

¹ There are pieces on which only H is legible. I have included them with the two varieties inscribed HP. It is possible, however, that ΗΓΗΣΙΑΕΩΣ also struck triobols marked with his initial H (or initials ΗΓ).

² The letters ΕΥΠ suggest Eupolis, and ΚΑ or ΚΑΑ (*cf.* Egger XLVI, 251) might be Kallikrates, but these names are not found on staters before the fourth century.

drachm stater and with the Persian tridrachm stater.

I have found weight records for ninety-one specimens of these coins, whereas of the quarter staters of about 3.20 gm (Plate XVI, 161) I know only five.¹ Thus the latter was comparatively unimportant, and if it was minted after the introduction of the Attic tridrachm stater, which is not impossible, its use was soon discontinued.

I append here a table showing the distribution of weights for the Attic tetrobols (Persian triobols) which do not have the name of the magistrate in full.²

2.91-2.95	1
2.81-2.90	6
2.71-2.80	19
2.61-2.70	15
2.51-2.60	22
2.41-2.50	14
2.31-2.40	9
2.21-2.30	5
	—
	91

I have grouped them into approximately eleven issues. The average of eleven high weights is 2.79 gm, and their range is from 2.92 gm to 2.62 gm.

¹ Br. Mus. Cat. 18, 3.21; Br. Mus. Cat. 19, 3.22 (Pl. XVI, 161); Naville V, 1517, 3.13; H. Weber 2336, 3.14; McClean 3963, 3.27.

² I include the ΕΠΙ ΜΟΛΠΟ issue because in style it belongs to this group.

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For the sake of comparison I give here the known issues of Persian triobols on which the name of the magistrates appear in full. Under each issue I list the heaviest specimen known to me and the piece illustrated on Plate XVI.

Serial No.		Weight
176. ΕΠΙ ΑΘΗΝΕΩ	a. McClean 3968	2.72
	b. Hermitage	2.12
177. ΕΠΙ ΠΟΣΙΔΗΙΟΥ	a. Hermitage	2.64
	b. Newell	2.43
178. ΕΠΙ ΖΗΝΩΝΟΣ	a. Athens 961	2.63
	b. Hermitage	2.30
179. ΕΠΙ ΝΟΥΜΗΝΙΟΥ	a. McClean 3973	2.88
	b. Hermitage	2.49
180. ΕΠΙ ΕΥΠΟΛΙΟΣ	Hermitage	2.43
181. ΕΠΙ ΜΗΤΡΟΔΩΡΟ	Hunter 380, No. 7	2.77
182. ΕΠΙ ΗΡΑΚΛΕΙΔΕΩ	a. Hirsch XIII, 590	2.61
	b. Br. Mus. Cat 43	2.53
183. ΕΠΙ ΑΡΙΣΤΟΛΕΩ	a. Berlin 46	2.87
	b. Newell	2.21

The average weight of the eight heaviest specimens is *ca.* 2.70 gm. As the norm of the Maroneitan stater of Persian weight was approximately 10.90 gm, there can be no doubt that the smaller coins were used as triobols of this standard. They are distinctly lighter than the tetrobols of the preceding period, as the following table shows.

2.81-2.90	2
2.71-2.80	7
2.61-2.70	6
2.51-2.60	8
2.41-2.50	8
2.31-2.40	4
2.21-2.30	7
2.11-2.20	3
2.01-2.10	1
	—
	46

A few specimens of a smaller denomination have been published. Some of them have a cluster of grapes as reverse type. Others have a tripod. In general they resemble the coins which I have called tetrobols. The following specimens are known to me.

Without inscription and with cluster of grapes.

Newell	1.36
Hermitage	1.21
H. Weber 2337	1.23
H. Weber 2338	1.19
Empedocles	...
Empedocles	...
Br. Mus. Cat. 44	1.25

With MAPQN and cluster of grapes on reverse.

Athens	...
Br. Mus. Cat. 45 α	1.24
Pozzi 1053	1.35
Cf. McClean 3974	1.12

Letter H on obverse. Reverse as above.

Br. Mus. Cat. 45	1.18
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MA and cluster of grapes on reverse. Symbol: ivy leaf.

Imhoof-Blumer 18¹ 1.35

MAPQN and tripod on reverse.

Br. Mus. Cat. 46 1.33

Br. Mus. Cat. 47 1.17

Berlin 25 1.44

Since these coins parallel the tetrobol series and are approximately half as heavy, they can be called diobols.

Two other pieces which are similar to the tetrobols, although of different weight, remain to be considered. One of them, a piece in the Hermitage weighing 1.85 gm, seems to be inscribed MHT on the obverse. The other (Spink's Circular, March 1914, 179), weighing 1.81 gm, has AΘN. On the reverse there is an amphora symbol and the letters MA. Thus these pieces, despite their weights, are probably contemporary with the tetrobols inscribed MHT and AΘN. I have already suggested that these abbreviations were used by Metrodorus, or Metrophanes, and Athenes, officials whose names appear on the heavy Persian tri-drachms. In confirmation of this hypothesis it may be noted that the coins weighing about 1.85 gm are approximately ninths of the Persian tridrachm stater.

In conclusion, it is not impossible that Maroneia struck quarter staters for a short time after the introduction of the Attic tridrachm stater. Then she introduced the Attic tetrobol and diobol which

¹ Zeit. f. Num. III, 1876, p. 283, 18.

became Persian half and quarter obols when the Persian tridrachm stater was adopted. Finally, an experimental Persian diobol was minted, but in the fourth century when the Persian standard in its regular form was introduced, coins smaller than the half drachm were not issued.

Now that we have passed in review the silver coinage of Maroneia up to about 410, it is possible to turn our attention to a contemporary gold coin, *B. M. C. Thrace*, p. 233 (*Num. Chron.*, III, p. 109), cf Pl. I, A. There is a specimen better preserved in Paris, Pl. I, B. This issue is very close in types to the Attic tridrachms. It has the same twisted vine characteristic of these coins, the name of the city about the linear square found on this series alone, and a horse almost identical with that of *B. M. C. Thrace*, p. 234, 14 β (Pl. XI, 61). It is possible too that the symbol above the horse, a bunch of grapes, not found elsewhere on Maroneitan coins, appears during this period, but even though it does not,¹ there can be no doubt as to the date of our gold piece. It belongs between about 430 and 410, and nowhere else.

In weight these coins are peculiar, for they do not fit into any ordinary standard. The better preserved of the two weighs 3.32 gm, while the other weighs only 3.14 gm. Certainly this is not an Attic tetrobol, being far too heavy for that non-

¹ The symbol on the ΗΓΗΣΙΑΕ[Ω]Σ specimen is very indistinct. It may be a bunch of grapes (Pl. XI, 56).

existent Athenian coin. It is likewise too heavy for a third of a daric. Nor does it have a place in the Persian silver standard used in Maroneia after about 395.

It must be clear from the weight, that in minting gold, Maroneia used a standard derived from that of her silver coins. These gold pieces are quarter staters even though the Paris specimen is rather heavy, and though the majority of the silver staters are somewhat too low. Nevertheless, if we compare them with the heaviest specimen of Maroneia or Abdera, *ca.* 12.90 gm, the correspondence is sufficiently exact. The perfect Paris specimen is now a trifle too heavy and the worn British Museum piece is a trifle light.

Now that we have found Maroneia striking quarter staters in gold, possibly we should assume that the silver coins weighing about 3.20 gm were contemporary with it; but of this we cannot be certain. Moreover, when we come to relate the gold coin of Maroneia to the silver coins, tridrachms and tetrobols, we find that the three classes fitted precisely into one another and combined to form a most convenient monetary system.

With gold thirteen and a third times the value of silver, a gold coin would exchange for three and a third silver coins four times as heavy. Since the gold coin is a quarter stater in all probability, the exchange situation would have been not at all satisfactory if there had been silver quarter staters,

but as the stater was divided by nine and four and a half, the gold coin equalled fifteen Attic tetrobols and thirty diobols of Attic standard. In other words, with a slight variation we have the Phoenician system of relating gold and silver coins, one gold coin for fifteen silver, rather than the Persian system where one gold piece exchanged for ten silver pieces. This is a system to which Maroneia must have been accustomed, since her early fifth century standard was Phoenician, and her first coins, didrachms and drachms, not tetradrachms. Thus a daric would have exchanged for fifteen didrachms. In this attempt to apply the old customs of exchange to a new standard, the peculiar weight of the gold coin may have originated. The standard for the gold was new, but the principle was as old as the Phoenician standard itself.¹

It should be noted also that this gold coin works in well with nearly every standard used in Maroneia. It equalled two and a half Attic tetradrachms. Possibly the heavy weight is due to a desire to make it equivalent to this number of standard Athenian coins. It also equals three staters of the old Phoenician standard. Nor does its usefulness cease here, for it could readily find a place in the Persian system. If we reckon the Attic tetrobol as a Persian hemidrachm, the exchange value would be seven and one-half Persian shekels. But as we

¹ The common form of the Phoenician system was slightly different, since fifteen Phoenician staters equalled two darics, not one.

have seen, the Attic tetrobol is a little heavy for a Persian hemidrachm and our gold coin is of full weight. Thus the exchange would be more nearly sixteen to one, four staters for one gold piece. The weight of the gold coin was most convenient.

It is possible too that the gold coinage was a result of the revolt of the Thracian coast from Athens between 411 and 408. Then the Peloponnesian sailors would have found the weight of the gold coin familiar, for it is not far different from the Aeginetic standard. Money was certainly needed at that time to pay the sailors, and while gold coins of Aeginetic weight were not known, they would doubtless be acceptable to the allied forces.

While it is possible that other causes were responsible for the first minting of gold at Maroneia, *e. g.*, Odrysian intervention, we can hardly date this issue of gold much later than 410. Between 408 and 405 Athens was in control again, and Athens was not likely to allow free minting of gold in that period. After 404, possibly even as early as 411, we have the adoption of another standard by Maroneia, the so-called "Light Attic." To the stater of this weight I have given the name Persian tridrachm. Judging from the number of magistrates and types known, this series lasted about ten years to be followed by the Persian standard.

The following list of issues of the Persian tri-drachm is based on Regling¹ with additions and a change of order necessitated by the fact that the first coins of Persian weight issued by Athenes imitate the reverse of his heavier staters. Thus the group of coins issued by Theodotos, with its single cluster of grapes on the reverse, is apparently the earlier.

Serial No.	Die Nos.		Weight
ΕΠΙ ΘΕΟΔΩΤΟΥ Thyrsus on reverse to the ΜΑΡΩΝΙΤΕΩΝ right of the linear square. One cluster of grapes.			
65.	1-1	Empedocles ex H. Weber 2331	13.90 (sic)
66.	1-2	a. Berlin, ex Hirsch XXV, 180 (Regling 11)	15.82
		b. Regling-Warren 495 (Reg. 13)	16.61
		c. Br. Mus. (N. C. 1888, 2 ff.; Reg. 12)	16.17
		Cf. N. C. 1841, 110, 9 ("Possibly same as b." Regling)	16.56

ΜΑΡΩΝΙΤΕΩΝ Symbol used for punctua-
ΕΠΙ ΗΡΟΦΙΛΟΥ tion between ΗΡΟΦΙΛΟΥ
and ΜΑΡΩΝΙΤΕΩΝ un-
certain.

¹ Zeit. f. Num., 1923, p. 32, note 2.

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Serial No.	Die Nos.		Weight
67.	2-3	a. Leake, <i>Num. Hell. Eur. Greece</i> , p. 70	14.89
		b. Copenhagen	16.65
		Sestini, <i>Mus. Hedervar. Eur.</i> I, p. 57, No. 5	.....
		Vatican (Regling 9)	16.50
		<i>Num. Chron.</i> , 1888, p. 3 (Regling 10. Modern forgery—Fig. 9)	
		Christodoulos forgery	



Fig. 9

ΜΑΡΩΝΙΤΕΩΝ ΕΠΙ ΜΗΤΡΟΦΑΝΕΟΣ No symbol.

68.	3-4	a. Gotha	16.20
		b. Mionnet, I, 389, 165, (Choiseul Gouffier, <i>Voyage en Grèce</i> , II, Pl. XVI, 18) Regling 1.	

ΜΑΡΩΝΙΤΕΩΝ ΕΠΙ ΜΗΤΡΟΦΑΝΕΟΣ Silenus head at base of the trunk of the vine.

69.	4-5	a. Imhoof-Blumer 30 (Regling 3)	16.20
		b. Empedocles, ex Naville IV, 481 ex H. Weber 2332 (Regling 6)	15.80

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Serial No.	Die Nos.		Weight
70.	5-5	a. Br. Mus. (Regling 5)	16.31
		b. Hirsch XIII, 581	16.69
		(Anson III, 459; Regling 4)	
71.		a. Hirsch XIII, 582	16.16
		b. Hirsch XXV, 181	16.18
		c. Hirsch XVII, 671	16.26

MAPQNITEQN EΠI Amphora before the
MHTPOΦANEOS trunk of the vine.

72. 5-6 Bunbury 1896, 589 (Regling 2) 15.88

MAPQNITQN EΠI No symbol.
MHTPOΔΩPO

73. 6-7 Jameson 1060 16.22

MAPQNITQN EΠI No symbol.
AΘHNEΩ

74. 7-8 Regling-Warren 496 (Reg. 8) 16.58

75. 8-8 Mionnet, 1, 389, 164 (Regling 7) 16.96

Analysis of these coins is difficult because of uncertainty as to the genuineness of many specimens. This series has been a fertile field for modern forgers, and Regling¹ has been inclined to consider spurious coins of Athenes and Erophilos, although he does not question the existence of an authentic prototype from which imitations of Erophilos' coins were made.² Eliminating these doubtful issues and

¹ *Zeit. f. Num.*, 1923, p. 32, note 2. Cf. *Num. Chron.*, 1888, pp. 2 ff.

² In my opinion there is no need for suspecting the Erophilos and Athenes pieces (Pl. XII, 67a, 67b and 74). For an Erophilos forgery, see fig. 9.

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two specimens of extraordinarily light weight, the coins group themselves as follows:

16.61-16.69	2
16.16-16.31	8
15.80-15.88	3

Thus the norm is not far from 16.20 gm. Nor would the distribution be greatly affected if we included the suspicious specimens. There would be eight weights grouped about 16.20 gm and six above 16.50 gm, and an average of the high weight specimens would be slightly above 16.60 gm. Without the suspicious specimens the average of three weights is 16.51. This standard has been dubbed Light Attic for want of a better name, but it is easy to see that it is very light Attic even if we take the highest of the weights given above.

Moreover, whenever the standard was adopted, whether in 411, when Maroneia must have been in revolt if she struck coins, or in 404 after the defeat of Athens, it is unlikely that Maroneia would have taken the Attic standard, for the Persian standard was either then supplanting, or on the point of supplanting, the Attic along the coast. It will be no surprise to learn that a coin weighing 16.60 gm was about six times as heavy as the small coins that Maroneia was then minting. We can now call them Persian hemidrachms. We have seen also that Athenes and Metrodoros probably struck diobols of Persian weight. Now the norm for the

Persian staters which replaced the so-called light Attic in the fourth century was about 10.90 gm (average of high weights = 11.13 gm). The correspondence is as close as one could wish or expect. The so-called light Attic stater was a Persian tridrachm, just as the so-called Aeginetic stater was an Attic tridrachm. But this was only an experiment in an age and region of numismatic experiments, and the normal Persian standard soon was adopted both at Maroneia and Abdera.

With this Persian tridrachm stater went a gold coin, as before, about one quarter as heavy as the stater, 4.01 gm.¹ But in this case the standard is not new. Our gold coin was probably intended to pass for half a daric, a little light of course, although not so light as it would be for an Attic drachm. Consequently, whatever the date of this issue may have been, there is no need for considering that the Athenian issue of 406 was its forerunner as to weight.

Our coin, at the ratio of thirteen and a third to one, the usual ratio in Asia, would be worth twenty of the small coins now minted in Maroneia as Persian hemidrachms. Possibly the region called them drachms instead. While the gold coin would equal three and a third of the tridrachm staters, the exchange would be simple because of the custom of

¹ I know it only as described by Head, *Hist. Num.*,² 250. I have been unable to discover its present location, and its condition is not known.

dividing by six. Of course the exchange with Persian staters would have been simple, but the type of our gold piece probably indicates that it was contemporary with the Persian tridrachm stater.

The obverse of the silver staters shows the unbearded head of Dionysus. On the gold coin we have the bearded head of this god. This differentiation of types between denominations is most natural and not at all unheard of. In fact, at Thasos the bearded god was used together with an unbearded head.¹ Since the god Dionysus replaces the horse as obverse type on the silver coins of Maroneia only in this period, we need not hesitate to date the gold piece about the turn of the century before the ordinary Persian standard was adopted there.

Our study of this issue of gold coins brings us again to the fortunes of the Odrysian empire, for it is at least possible that Maroneia's relations with the Odrysian princes were responsible either for one or both gold issues.

We know that the empire began to disintegrate in the time of Seuthes,² while Strack has shown that

¹ An early Maroneitan bronze piece has the unbearded head. Its reverse, a single cluster of grapes in a linear square surrounded by the legend ΜΑΡΩΝ · ΙΤΩΝΕ · ΠΙΠΥΘ · ΟΝΙΚΟ, a magistrate otherwise unknown, resembles the issues of Theodotos and Athenes particularly. The rare coin inscribed ΕΠΙ ΑΡΙΣΤΟΛΕΩ, (Mionnet, I, 389, No. 162), also has for obverse type the head of Dionysus.

² Höck, *Hermes*, 1891, 84 ff. For a brief survey of Odrysian history under the successors of Sitalces, see Casson, *Macedonia*, 197-208.

about 412 as a result of this disintegration Aenus revived and experienced a burst of prosperity such as she had not known for nearly thirty years.¹ The destruction of the Odrysian power was clearly of greater moment in the affairs of Aenus than the break-up of the Athenian empire. This was true to a certain extent at Maroneia also, for the abundant coinage of Maroneia indicates that the city prospered about 400. That Maroneia was more closely connected with the Odrysian dynasts than was Aenus can be seen from a study of the coins of some of these dynasts, struck either at the Maroneitan mint, as has been supposed, or more probably under its influence.

The chief cause for the decline of Odrysian power was the division of territory among princes presumably of royal blood and their almost continuous struggles for independence or supremacy.² Though it might be taken for granted that the Greek cities were not passive spectators of these struggles, since the success or failure of a prince might mean loss, or renewal, of trade or continued stagnation, yet it will be helpful to consider the scattered evidence and to see how the Greek cities acted as patrons for rival princes, possibly supplying them with money, allowing them the use of their mints, and serving as general headquarters for their expedi-

¹ Strack, *op. cit.*, 134 ff.; cf. Casson, *op. cit.*, 200-201.

² Cf. Hünerwadel, *Forschungen zur Gesch. d. Königs Lysimachos*, pp. 1 ff.

tions against rival claimants. Besides the coins of Amadocus and Teres, which I shall discuss later, we have a fourth century coin of a certain Spokes, minted at, or under the influence of, Abdera,¹ when Maroneia and Abdera were probably the patrons of rival dynasts. This rivalry between Maroneia and Abdera is known from Diodorus and a scholion to Aristides,² which tells us of a joint Triballian and Maroneitan attack upon Abdera in alliance with the Thracians (Diod. XV, 36), and of the reconciliation of the kings of these two cities by Chabrias, in 375 perhaps. Of course, the cities had no kings, but it is easy to see that the scholiast confuses the royal protégés of the cities with kings actually exercising authority in them. Confirmation of the scholiast as to the general state of affairs, though not as to the facts of the year 375 for which he vouches, is to be found in the statement of Xenophon,³ that Thrasybulus reconciled the two princes, Seuthes II and Amadocus, in the expectation that a settlement of their quarrels would cause the Greek cities of the Thracian coast to be more friendly toward Athens.

¹ von Sallet, *Beschreibung* I, p. 118, No. 144.

² *Panath.*, ed. by Dindorf, III, p. 275. It is repeated with variations in another scholion. p. 282. Cf. *I. G.* II², 21, an inscription which mentions Seuthes and Chabrias, and Johnson, *Cl. Phil.*, IX, p. 421.

³ Xen., *Hell.*, iv. 8, 26: καταμαθὼν στασιάζοντας Ἀμήδοκόν τε τὸν Ὀδρουῶν βασιλέα καὶ Σεύθην τὸν ἐπὶ θαλάττῃ ἄρχοντα κτλ.; cf. Diod. XIV, 94: Μήδοκον καὶ Σεύθην τοὺς τῶν Θρακῶν βασιλεῖς συμμάχους ἐποίησατο (Θρασύβουλος), wrongly dated in 392 B. C.; Höck, *Klio*, IV, 268 f.

That Aenus was directly involved in Thracian affairs may be inferred from the bipennis which appears as a symbol on its coins just before 412,¹ about the time that Maesades, a petty prince whose territory extended from the Hebrus River to the Propontis, was driven into exile, and his territory was severed from the Odrysian empire.² This event opened up the land route to the Black Sea for Aenus, and assured her a new prosperity.³ Later during the fourth century, when Cotys⁴ (383–

¹ Strack, *op. cit.*, Nos. 292, 304.

² Höck, *Hermes*, XXVI (1891), pp. 84 f.

³ For the relations between Aenus and Cypsela, an inland city, see p. 151, note 2, *infra*.

⁴ Cotys reigned 24 years, (Suidas, s. v. Κότυς), gaining control of the kingdom about 383, and ruling until 360. For this king, cf. Kahrstedt, *R. E. s. v. Kotys*. Kahrstedt shows that Cotys was called king as early as 387. Until about 383, Cotys may have been only one of several rival kings and princes. If Johnson, *loc. cit.*, is correct in dating, *I. G. II², 21*, in 376, (Höck, *Hermes*, XXVI, 456, originally dated it *ca.* 383, but in *Klio*, IV, 268 f, he accepted the date 390–89), Seuthes may have been alive several years after his supposed disappearance from Odrysian politics. It is probable that Hebryzelmis was acknowledged as Odrysian king by Athens (385) in an attempt to counteract the anti-Athenian policy of Seuthes, and it may be that Iphicrates restored the latter to power about this time. Cf. Höck, *Hermes*, XXVI (1891), p. 459. Nepos, *Iph.* 2; Redhantz, *Vitae Iphicratis, Chabriae, Timothei*, pp. 27 ff. 31. Thus the kingship of Cotys, if the title King was not erroneously given to him at the time of the marriage of Iphicrates to his daughter *ca.* 387, could have been at best partial. But I am inclined to think that *I. G. II², 21*, has been misunderstood. While the inscription probably does contain a reference to the territory of Seuthes, it is by no means certain that Seuthes was alive at the time. It is conceivable, for example, that an Athenian treaty with an heir or successful rival of Seuthes, might have had occasion to mention him. Cotys was

360/59) had consolidated his power, Aenus suffered economic decline, and two of her citizens murdered the Odrysian king, to avenge their father, as the story is told. This private feud is quite probably connected with political and economic rivalries, the details of which we do not know. Finally, in 342, the Greek cities along the coast, Aenus undoubtedly among them, called upon Philip for assistance against Cersobleptes,¹ one of Cotys' successors.

Thus it is clear enough that the Greek cities, to retain their independence, adopted the policy of fostering dissensions and disintegration within the Odrysian Empire. Too little is known about these struggles to warrant going into detail but I shall try to reconstruct as much of the general outline as concerns Maroneia.

We begin with Metocus, or Madocus, a prince, who, apparently with the friendly assistance of Maroneia, was able to keep and seize the throne after the death of Seuthes I. He is known as the Odrysian king in 405-4 (Diod. XIII, 105), and the territory over which he ruled directly was in the district inland from Maroneia, a kingdom consider-

certainly king in 376-5, but his relationship to Seuthes is uncertain, and the hypothesis that he was a son is extremely hazardous. Thus the inscription may well date in 376-5; and, if it does, it is reasonable to connect it with the activity of Chabrias on the Thracian coast and with the joint Triballian and Maronitan attack upon Abdera.

¹ Höck, *Hermes*, XXVI (1891), pp. 100, 114; Strack, *op. cit.*, pp. 137 f.; Diod. XVI, 71.

ably smaller than that of his predecessors.¹ A coin of Metocus shows by its type the friendly relations between him and Maroneia.² On the obverse is a bearded head, probably Dionysus, which suggests that it was struck when Maroneia was using the Persian tridrachm standard. In fact the coins of the Odrysian princes, Metocus, who is probably Amadocus, and Teres, show a progression in types parallel even as to details with that of Maroneia.

We can hardly doubt that Maroneia gave Metocus active support in return for commercial privileges, and knowing the incessant struggle necessary to gain and keep the Odrysian throne at this time, we must not minimize Maroneia's efforts. In as much as Metocus had a fairly firm hold on the throne about 400, it is probable that Maroneia rendered its most valuable assistance to Metocus when he gained the throne after the death of Seuthes I, in the last fifteen years of the century.

Maroneia was fortunate in the choice of her prince, for Metocus kept the throne for at least fifteen years and possibly even for twenty-five. He may have been succeeded by Amadocus, called

¹ See Höck, *Hermes*, XXVI (1891), pp. 84 ff. According to the words of an untrustworthy Maroneitan in the service of Seuthes II in 400, Metocus' territory extended a twelve days' journey from the Propontis, Xen., *Anab.*, vii. 3, 16. According to Thuc., ii. 97, the territory of Sitalces extended at most an eleven days' journey from the Ister. Making allowances for the different motives of our authorities, we see that the district inland from Maroneia was held by Metocus in 400.

² Von Sallet, *op. cit.*, I, p. 329, no. 8.

Metocus by Diodorus, who was ruling about 389 when Thrasybulus acted as peace-maker between him and Seuthes, hoping thereby to bring about better relations between Athens and the Greek cities of the coast.¹

There is an element of confusion at this point, which makes it difficult to tell whether Amadocus and Metocus are variants of the same name, and if the names are to be considered identical, whether there were one or two princes of this name at the beginning of the fourth century. The evidence is as follows. A Metocus is known at the end of the fifth century from the writings of Xenophon. He struck silver coins under that name. At the beginning of the fourth century, Xenophon speaks of an Amadocus, and we have bronze coins with that name. Did the Metocus of the silver coins use a different spelling on his bronze issues? Diodorus,

¹ Xen. *Hell.*, iv, 8, 26; cf. Diod. XIV, 94, where the name Metocus is used, wrongly dated in 392. An Athenian inscription, *I. G.*, II², 22a, has been thought to contain a reference to the negotiations of Thrasybulus. It probably contains the name Medokos in two places, MHΔO[K - -] and [MH]ΔOKQI, but unfortunately it is impossible to tell whether the name was spelled with an initial *alpha*, and there are other uncertainties which preclude our using it as evidence. A second inscription, *I. G.*, II², 21, has likewise been connected with Thrasybulus' activities in 390-89. While the inscription mentions Seuthes, the fact that Chabrias, rather than Thrasybulus is mentioned, together with certain formulae used in the inscription, makes it difficult to agree with the editors who have dated this in 390-89. Johnson, *Cl. Phil.* IX, p. 421, thinks that it should be assigned to a later period, *ca.* 376, when Chabrias is known to have been active on the Thracian coast. Cf. note 4, p. 66.

who calls the Amadocus of Xenophon by the name of Metocus, does not throw light on the problem except as he tends to show that there were two forms of the name.

While I am inclined to the view that Xenophon cannot be followed in distinguishing Metocus from Amadocus, I do not feel that the evidence is conclusive, or that the identification of Amadocus and Metocus should result in dating the bronze coins of Amadocus about the middle of the fourth century.¹

The date of the bronze coins of Amadocus is easily ascertainable by comparison with the coins of Maroneia. They show two varieties of reverse types, one the single cluster of grapes found on the early Persian tridrachms, almost identical in size with the bronze coins of Amadocus, and the vine with several clusters—five or seven. A mere description of the latter type gives no idea of the faithfulness of the reproduction of the vine with five clusters on the coins of Apelles (Pl. XIV, 102a), a fourth-century Maroneitan mint-official. Since the coins of Apelles are unique in the character of the vine on the reverse and exceptional in the absence of a symbol, they are not easy to place definitely within the series of Persian staters. Still, they seem to be early rather than late, *i. e.*, much closer to 390 than to 350. That the bronze

¹ Höck, *Hermes*, XXVI (1891), 84 ff. thinks Amadocus and Metocus are one man. Judeich, Pauly Wissowa, I, s. v. Amadokos, does not agree with Höck.

of Amadocus was also struck in the early fourth century is confirmed by the unusual thickness and the *recht altem Aussehen* of the coins.¹ But since the dates of the Odrysian dynasts are fixed by chance references in Xenophon, we can be more precise about the adoption of the two forms of the Persian standard at Maroneia.

Metocus was on the throne in 405-4,² and in 400.³ His coins, as we have seen, are contemporary with the Persian tridrachm stater. Therefore, that was in use about 400. The coins with the name Amadocus are contemporary with both tridrachm and didrachm Persian staters. A man called Amadocus was on the throne in 389. Therefore, the tridrachm stater ceased to be issued between 400 and about 390—let us say, about 395. If it was in use ten years, it began as early as 404.

We can be more precise. Amadocus imitated the cluster of grapes on the Persian tridrachm stater,

¹ von Sallet, *Zeit. f. Num.*, V, 95. Wroth, *Num. Chron.*, 1891, pp. 118 f., followed by Head, *Hist. Num.*,² 283, and Höck, *Hermes*, 1891, 85, note, assign these coins to Amadocus II, disagreeing with von Sallet. Casson, though, identifying Amadocus and Metocus, *Macedonia*, p. 198 f., assigns the bronze coins of Amadocus to Amadocus I, while on p. 201 and p. 195 note, he assigns them to Amadocus II, 360-350, where he also places the bronze issues of Teres III (?). Dobrusky, *Numismatique des Rois Thraces* (Bulgarian) Sofia, 1897, pp. 580 ff., 632, dates the coins of Amadocus and Teres ca. 400. Cf. pp. 577 ff., No. 2a; Pl. I, 10-12. For a coin assigned to Amadocus II, see p. 601; cf. Filow, *Röm. Mitt.*, 1917, p. 53.

² Diod. XIII, 105.

³ Xen. *Anab.* VII, 3, 16.

and this reverse type was apparently used on the first issues of this standard in Maroneia, Pl. XII, 65, 66a-c. The evidence is to be found in the coin of Athenes. The reverse of his first Persian staters, Pl. XIII, 76a, 77, are exact reproductions of his tridrachm, both as to inscription and details of the vine, Pl. XII, 74. They form the link between the two standards. Only one Maroneitan magistrate used the single cluster of grapes for a reverse type, and his coins come presumably at the beginning of the Persian tridrachm series. Thus, the name Amadocus was used on Odrysian bronze coinage from about 405 to about 386, the year when Hebryzelmis is known to have been on the throne. As Metocus was the Odrysian king in 405 and again in 400, the evidence of Xenophon and the coins is mutually corroborative. It points to the identification of Metocus and Amadocus.

While we are not told who was supporting Seuthes when Thrasybulus reconciled him with Amadocus in 389, the coinage of Amadocus shows where the latter obtained his support. But after Amadocus, the seat of Odrysian power passed to the east, as the coins of the later Odrysian monarchs show by their use of the type of Cypsela, an inland town on the Hebrus River.¹ Hebryzelmis, the first of them to use the mint of Cypsela, held a princi-

¹ Höck, *op. cit.*, pp. 89 ff., 459; Imhoof-Blumer, *Mon. Grec.*, 51 ff.; *Griech. Münz.*, pp. 6 f.

pality in 386-5,¹ and this may or may not give us the lower limit of the reign of Amadocus. Whether Hebryzelmis was the interpreter of Seuthes II is uncertain.²

There is one name that we have been unable to fit into the outline. A Teres also used the reverse type of Maroneia, somewhat similar to that which Amadocus took over from Apelles' coins. This identity of type between Maroneia and the Odrysian princes, taken in connection with the appearance of magistrates' names about the linear square on the reverse, has been interpreted as proof first that they were struck at Maroneia and secondly that the city at the time was subject to them. But neither conclusion is necessary.

¹ *I. G. II²*, 31 (Ditt.,³ 138). I am inclined to the opinion that Hebryzelmis was only one of several rival Odrysian rulers, and that he was master only of a part of the kingdom. The chance preservation of his treaty with Athens has been responsible for his looming too large in modern discussions of the Odrysian kingdom. It is probable that Seuthes' hostility to Athens was responsible for the treaty. Cf. Aristides, XIII, *Panath.*, 172; Höck, *Hermes*, XXVI, pp. 456 ff.; Swoboda, *R. E. s. v.* Seuthes. In other words, Hebryzelmis may have been nothing more than an Athenian tool, and he may have been no more entitled to be called king than his rivals. It is possible, too, that Seuthes was restored to his principality soon afterwards. Cf. Nepos *Iphicrates*, 2. Another rival was Cotys, whose power seems to have antedated that of Hebryzelmis. Even Amadocus may have continued in power in the region about Maroneia during this period of the factional struggle of the eighties. There are at least six varieties of his bronze coins known.

² Xen. *Anab.* VII, 6, 43. Bannier, *Ber. Phil. Woch.*, 1918, pp. 451 f., suggests that he was a son or relative of Seuthes.

Assuming for the moment that the Maroneitan mint was used, let us consider the question of overlordship here, for it has an important bearing on the date of the coins. In the first place, the use of the types of Greek cities was not uncommon in this region. Saratocus, Ketriporis, and Bergaeus—if we consider him a dynast rather than a town, as suggested by Svoronos—used Thasian types. They were not lords of Thasos. The coin of Spokes, minted in imitation of Abderitan coins, is more to the point, for it bears the name of a monetary official exactly as do the coins of Amadocus and Teres. Thus even though the Maroneitan mint may have been used, there would be no proof of overlordship.¹ Furthermore, so far as is known, the names of the monetary officials which appear on the coins of the Odrysian dynasts are not those of Maroneitan officials, of which we have a long list preserved.

When Wroth ascribed these coins to the dynasts Amadocus II, 359–351, who jointly with Cersobleptes succeeded Cotys, and Teres III, *ca.* 350, partly because neither Amadocus I nor Teres II is known to have possessed Maroneia,² the city in which he thought the coins were struck, while, as

¹ Casson, *op. cit.*, p. 201, correctly states that the coins of Abdera, Aenus, and Maroneia show the cities to have been free from beginning to end. But Casson is not consistent in his references to the coins of Amadocus and Teres. Cf. pp. 195, 198.

² *Num. Chron.*, 1891, pp. 118 ff.

he said, Amadocus II ruled over a part of the coast between Maroneia and the Chersonese, I think he misconceived the relations between the Greek cities and the dynasts, forgetting that the Greek cities would undoubtedly find it profitable to subsidize friendly monarchs in order that they might preserve their independence against rival princes who might otherwise disturb the balance of power and gain control of their territory. Furthermore, the passage in Demosthenes¹ which suggested to Höck² and Wroth that Amadocus was ruler in Maroneia, implies rather that his authority did not extend to the territory of that city. Amadocus could prevent Philip from advancing beyond Maroneia toward the Chersonese, but he could not prevent him from entering the city, nor did he attempt it, so far as we know.

Thus even if the coins are rightly ascribed to Amadocus II, which I question, I think it probable that at the most the city loaned him the use of its mint as sponsor and ally, rather than as subject.³ But the more we insist upon the actual use of the Maroneitan mint by Amadocus, the more emphasis we shall have to place on the details of the type which point to a date about 390, not to Amadocus II who ruled between 359 and 351.

But if the possibility is admitted that Maroneia

¹ Dem., xxiii. 183.

² *Hermes*, XXVI, 110 ff.

³ Cf. Casson, *op. cit.*, p. 201.

was sponsor for Amadocus II, it must be admitted also for Amadocus I and Teres II. As for Teres III, there is no evidence whatever, aside from the coins that have been ascribed to him, that he had any connection with Maroneia. In fact, we cannot be at all sure of his existence, and although it would be rash to say that there was no Teres III, still Schaefer's conjecture,¹ based partly on a statement of Theopompus as to the longevity of an Odrysian king Teres,² that the Teres of Xenophon³ lived to the ripe old age of ninety-two years and was the man mentioned in Philip's letter,⁴ is as reasonable as Höck's hypotheses.⁵ But even if Höck's conjectures are true, they cannot be used as evidence that the coins we are discussing were struck by Teres III after 351, when the coins themselves suggest a much earlier date. Nor did Höck ascribe these coins to Teres III.

Finally, while we know from an Athenian inscription, *ca.* 357,⁶ that certain cities named in a

¹ *Demosthenes u. s. Zeit.*, II,² 446, note 1. A Teres, son of Cersobleptes, is known from Ditt.,³ 195 (356 B. C.), contemporary with Amadocus II. It is extremely improbable that this Teres is the man mentioned in Philip's letter.

² Theop., frg., 284.

³ *Anab.*, vii, 5, 1.

⁴ (Dem.) xii, 8, 10.

⁵ *Op. cit.*, 110 ff. The discovery of the Delphian inscription, Ditt.,³ 195, caused Höck to withdraw his first suggestion as to the identity of Teres III. See *Hermes*, XXXIII, 635. Nor is he inclined to identify him with Teres, son of Cersobleptes, named in Ditt.,³ 195.

⁶ *I. G.* II², 126. Cloché, *Rev. Phil.* XLVI, 5 ff., has given the most recent analysis of this treaty.

part of the inscription now lost were tributary to the Odrysian princes, Berisades, Amadocus II, and Cersobleptes, we must infer that the obligations of these cities were limited chiefly to the payment of tribute. At the same time, the unnamed cities were apparently members of the Athenian confederacy, for the Thracian rulers gave assurances that Athenian interests would be respected and defended if members of the Athenian confederacy on the Thracian coast should attempt to rebel. As Maroneia was a member of the confederacy, it may have been among the unknown Greek cities tributary to the Odrysian empire about 357, *i. e.*, while Amadocus II was ruling. But certainly it possessed complete local autonomy at that time. Hünérwadel has adduced further reasons for thinking that the Greek cities of this coast were not subject to the Odrysian rulers.¹ He has shown also how fertile a field the Odrysian dynastic struggles provided for outside intervention,² although he apparently did not recognize how clearly the evidence points to almost continuous intervention by the Greek cities closest at hand, the very states that are supposed to have lost their independence. They intervened to preserve it, recognizing the Odrysian rulers as their nominal overlords only when the latter were strong enough to collect the tribute which they considered their hereditary right.

¹ *Op. cit.*, p. 5.

² *Op. cit.*, p. 2.

Thus it is of little historical significance whether the coins of Amadocus and Teres were minted in the city of Maroneia, or whether the close connections between Maroneia and the Odrysian princes resulted in the adoption of Maroneitan types and the use of Maroneitan engravers, as I am inclined to think.

Returning now to Teres, we find a reference in Xenophon to a petty dynast named Teres under Seuthes and Metocus ruling the Thracian Delta, a district near Byzantium.¹ Just what a ruler of this district had to do with Maroneia is not clear, but Höck's suggestion is possible, *viz.*, that Teres was driven from his throne at the same time that the territory east of the Hebrus River belonging to Maesades revolted and was separated from the Odrysian Empire.² If so, he probably took refuge in Maroneia, then or later, and sought the support of Maroneia for his return. We know that Seuthes II, the son of Maesades, sought refuge with Metocus until he was old enough to undertake the reconquest of his father's territory,³ and the fact that Seuthes' right hand man was a Maroneitan citizen suggests that during the time of Seuthes' visit with him Metocus lived at, or very near to, Maroneia.⁴ The fortunes of Teres may have been simi-

¹ *Anab.* vii. 5, 1.

² *Hermes.* XXVI., p. 85.

³ *Xen., Anab.* vii. 2, 32-34.

⁴ *Xen., Anab.* vii. 3, 16; *cf.* 4, 2; 5, 5-6, etc.

lar. At any rate, the coins of Teres are to be dated early in the fourth century about the same time as those of Amadocus.

It is now clear that Maroneia showed a direct and continuing interest in Odrysian affairs. I think it is also clear that much of her prosperity was due to the friendly assistance she had given to Metocus, the first Seuthes' successor. Probably during his struggles to gain the throne Maroneia struck the gold coins that have the obverse type found on the coins of Metocus. Possibly even her first issue of gold coins belongs to the first years of the reign of Metocus. Since it was almost a matter of life and death for the city that a friendly prince should rule in the hinterland, Maroneia undoubtedly devoted every resource of the state to securing her avenues of trade and prosperity. Money would have been needed, and as happened elsewhere in times of crisis, Maroneia may have resorted to the issue of gold coins to place and secure Metocus on his throne.

We have now two possible occasions when Maroneia may have needed to mint gold, the revolt of the Thracian coast from Athens and the dynastic rivalry after the death of Seuthes, one certainly before 408, the other uncertain because the date for the death of Seuthes is unknown.¹ While the

¹ The date of the death of Seuthes is given by Strack as about 412, for he connects it with the revival of the prosperity of Aenus. Seuthes probably died shortly before this. Cf. Höck, *op. cit.*, 84 ff. But it must be remembered that 412 is only an approximate date.

discovery of a fitting occasion for the minting of gold does not prove that the gold was minted then, the close chronological agreement between the Maroneitan coinage and the Odrysian struggles, taken together with the other points we have discussed, makes it very probable that one or both of the gold issues at Maroneia are connected somehow with Odrysian affairs. The first may or may not have been minted as an incident of the revolt against Athens,¹ but it undoubtedly antedates the adoption of the new standard about 404, thus coinciding very nearly in point of time with the revolt.

MARONEITAN STATERS OF PERSIAN WEIGHT

The following catalogue of light Maroneitan staters (Persian standard) does not pretend to be exhaustive. It contains only such specimens as I have noted in the course of this study. I have attempted to arrange the issues in chronological sequence, but at best the order is merely tentative. To those specimens which I have seen or of which I have seen casts or illustrations I have given numbers indicating obverse and reverse dies. Since an exhaustive study was not essential for my purpose,

¹ Since we have no ancient authority for the revolt of Maroneia between 411 and 408, we do not know that Maroneia joined her neighbors. The same is true of Aenus, whose coins we are about to discuss. Nevertheless, the revolt of these two cities is not at all improbable, for the revolt was widespread. We would have known nothing of the revolt of Abdera except for a statement about its recovery.

138 FIFTH AND FOURTH CENTURY

I have not attempted to get casts of many pieces listed below.

The obverse type is ordinarily a bridled horse left. The reverse contains a grape vine with four large clusters of grapes. When the horse faces right or is unbridled, I have indicated it in the following list. Likewise I have noted changes in the number of clusters on the reverse.

Serial No.	Die Nos.		Weight
ΜΑΡΩ-NITΩN-EΠΙΑ-ΘΗΝΕΩ No symbol.			
76.	1-1	a. Berlin	10.28
		b. Copenhagen	10.92
77.	2-1	Berlin	10.96
78.	...	Hoffman Sale 230	....
ΕΠΙ-AΘΗ-ΝΕΩ Symbol: head of grain on reverse.			
79.	3-2	a. Empedocles, ex Pozzi 1049; ex Hirsch XIII, 584	11.20
		b. Br. Mus. ex Weber 2333	11.29
80.	1-3	Commerce	....
ΕΠΙΠ-ΟΣΙΑΔ-ΕΙΟΥ Symbol: head of grain on reverse.			
81.	1-4	a. Berlin	10.85
		b. Br. Mus. Cat. 28	11.10
82.	3-5	Berlin	10.81
ΕΠΙΚ-ΑΛΛ-ΙΚΡΑ-ΤΕΟΣ Symbol: dog on obv. below horse.			
84.	4-6	a. Newell	10.63
		b. Copenhagen	11.23

THRACIAN COAST GOLD COINS 139

Serial No.	Die Nos.		Weight
		c. Jameson 1061	11.07
		d. Mionnet I, 389, 166	
85.	4-7	Berlin	10.54
86.	5-6	Vienna	10.50
87.	5-8	Munich, ex Helbing, 1913, 228, ex Hirsch XXI, 906	11.20
88.	6-9	Br. Mus. (Casson, fig. 14c)	11.21
89.	...	Hunter, p. 379, 3	10.80
	...	Hirsch XII, 141	

ΕΠΙ-ΙΚΕ-ΣΙΟ Symbol: thrysus on reverse.

90.	7-10	a. Vienna	10.57
		b. Hermitage	10.37
91.	8-11	Berlin	10.72

ΕΠΙ-ΙΚΕ-ΣΙΟ Symbol as above. Legend:
ΜΑΡΩ on reverse below the horse.

92.	9-12	a. Hirsch XII, 139	....
		b. Hirsch XXI, 904	10.90
		c. Helbing, 1913, 227	....
		d. Br. Mus. Cat. 25	11.08
93.	....	Egger, Verzeichnis 49, 84	14.10 (sic)

ΕΠΙ-ΙΚΕ-ΣΙΟ Symbol as above. Legend:
ΜΑΡΩ on reverse above horse.

94.	10-13	a. Copenhagen	10.90
		b. Br. Mus. (Guide 21, 5)	10.97
96.	....	Hirsch XIII, 583	10.59

ΕΠΙΗΓΗΣ-ΑΓΟΡΕΩ Symbol: eagle facing
left on obverse above horse.

140 FIFTH AND FOURTH CENTURY

Serial No.	Die Nos.	Weight
97.	11-14 McClean 3957 (Pl. 144, 9)	10.90
98.	11-15 Berlin	10.61
99.	.... Prokesch Osten, Num. Zeit. IV, p. 202, 11	9.76
ΕΠΙΗΓΗΣ-ΑΓΟΡΕΩ Symbol: flying eagle on obverse above horse.		
100.	12-15 Vicomte de Sartiges 171, ex Hirsch XII, 138	....
101.	11a-15a Br. Mus. Cat. 22	10.65
ΕΠΙ-ΑΠΕ-ΛΛ-ΕΩ No symbol.		
102.	13-16 a. Newell	10.65
	b. Br. Mus. 20	10.30
	c. Br. Mus. ex Bunbury 592	10.83
	d. Berlin	11.12
	e. Berlin	10.95
	f. Hermitage	10.90
	g. Imhoof-Blumer 27	10.50
	h. Naville IV, 482 ex H. Weber 2334	10.53
	i. Pozzi, 1046	10.89
	j. Egger XLI, 265	10.43
ΕΠΙΝΕΟΜΗΝΙΟ No symbol.		
103.	14a-17a Mionnet, I, 389, 167	....
ΕΠΙ-ΝΕ-ΟΜΗ-ΝΙΟ Symbol: Bucranium on obverse above the horse.		
104.	14-17 a. Copenhagen	11.41
	b. Berlin	11.30
	c. Pozzi, 1048	10.98
	d. Jameson 2018	11.03
	e. Naville XIII, 601	11.21

THRACIAN COAST GOLD COINS 141

Serial No.	Die Nos.		Weight
104A.	14b-17b	Br. Mus. Cat. 23 (Fig. 10)	10.89



Fig. 10

ΕΠΙ-ΧΟΡ-ΗΓ-Ο Symbol: fly on reverse.

105.	15-18	Berlin	11.33
106.	15-19	a. Berlin	10.58
		b. McClean 3961, Pl. 144, 13	11.30
107.	16-20	Vienna (Fenerley Bey 264)	10.76
108.	17-21	Helbing 226	10.70
109.	18-22	Hirsch XVII, 672, ex Hirsch XII, 140	10.80
110.	18-23	Hirsch XXXII, 418	10.54
111.	19-24	a. Newell ex Hirsch XXV, 182, ex Hirsch XVII, 673	10.85
		b. Copenhagen	11.00
112.	....	Egger XLI, 264	....
113.	....	Collignon (Feuardant) 167	....
114.	....	Hirsch XXI (Weber) 905	10.63
115.	....	Br. Mus. Cat. 26	10.83
116.	....	Boston, Perkins 190	11.06

ΕΠΙ-ΧΟΡ-ΗΓ-ΟΥ No symbol (Possibly barbaric imitations).

142 FIFTH AND FOURTH CENTURY

Serial No.	Die Nos.	Weight
117.	20-25 a. Hermitage b. Hermitage	10.10 8.99
ΕΠΙ-ΧΟΡ-ΗΓ-Ο Symbols: fly on reverse, flying owl on obverse.		
118.	..... Mionnet, Supp. II, 336, 817	.....
ΕΠΙΠ-ΟΛΥΑ-ΡΕΤΟ-Υ Symbols: scorpion on reverse, flying owl on obverse. Three clusters of grapes.		
119.	21-26 Newell	10.46
120.	22-26 a. Berlin b. Br. Mus. Cat. 27	10.95 11.35
121.	21-27a Mionnet I, 389, 168	
ΕΠΙΠ-ΟΛΥΑ-ΡΕΤΟ-Υ Symbols: turtle on re- verse, flying owl on obv. Three clusters of grapes.		
122.	21-27 Vienna (Fenerley Bey, 263)	10.60
ΕΠΙΠ-ΑΤΡ-ΟΚΛ-ΕΟΣ Symbol: flying owl on obverse.		
123.	21-28 Berlin	10.78
ΕΠΙΠ-ΑΤΡ-ΟΚΛ-ΕΟΣ Symbol: thunderbolt on obverse.		
124.	23-28 a. Hermitage b. E. P. Robinson, Newport c. Copenhagen	10.70 10.69 10.60
ΕΠΙ-ΜΗΤ-ΡΟΔ-ΩΡΟ No symbol. Horse right.		
125.	24-29 a. Berlin b. Empedocles ex Soth. (White King) 1909, 123	10.91 11.21

THRACIAN COAST GOLD COINS 143

Serial No.	Die Nos.		Weight
126.	25-30	Br. Mus.	11.01
127.	....	Hirsch XIII, 585	10.78
128.	....	Num. Chron. 1841, 109, 3	10.92
ΕΠΙ-ΒΟΥΤΑ Symbols on reverse: cantharus at left, thyrsus at right. Horse right.			
130.	26-31	Empedocles	10.91
131.	26-32	Copenhagen	10.84
132.	26-32a	Mionnet, I, 390, 173	....
ΕΠΙΜΗ-ΤΡΩΝΟΣ Symbol on reverse: plow at left. ΜΑΡΩΝΙΤΩΝ below horse. Horse right.			
133.	27-33	a. Empedocles, ex Weber 2335	10.92
		b. Vienna (Imhoof-Blumer 26)	11.02
		c. Berlin	10.77
ΕΠΙΜΗ-ΤΡΩΝΟΣ Symbol and horse as above. ΜΑΡΩ-ΝΙΤΩΝ above and below horse.			
134.	28-34	Copenhagen	11.00
ΕΠΙΜΗ-ΤΡΩΝΟΣ No symbol. ΜΑ-ΡΩ-ΝΙΤΩΝ about linear square on reverse; name of official on obverse above and below horse to r.			
135.	29-35	Naville XIII, 603	10.92
ΕΠΙΕ-ΥΕΙ-ΘΕΜ-ΙΟΣ No symbol. Horse right without rein.			
136.	30-36	a. Berlin (Imhoof-Blumer 28)	10.46
		b. Vienna	10.05
		c. Hermitage	10.07
		d. Berlin	10.01

144 FIFTH AND FOURTH CENTURY

Serial No.	Die Nos.	Weight
	e. De Luynes 1778	11.05
	f. Copenhagen	10.99
	g. Egger XLVI, 250 ex Hirsch, XXXII, 419	10.92
137.	30-37 Vienna	10.70
ΕΠΙ-ΠΟΛ-ΥΝΙ-ΚΟΥ Symbol: trident below horse on obverse.		
138.	31-38 a. Berlin	11.15
	b. McClean 3958, Pl. 144, 10	10.83
	c. Athens 957	10.83
139.	32-39 Copenhagen	10.55
140.	33-40 Naville XIII, 602	11.10
141.	.... Br. Mus. ex Bunbury 592	11.22
142.	Berlin (Imhoof-Blumer 29; forgery)	7.51
ΕΠΙ-ΕΥΠ-ΟΛΙ-ΟΣ Symbol as above.		
143.	31-41 a. Berlin	10.90
	b. Munich	....
144.	32-42 Naville I, 1047	10.58
145.	.... Br. Mus. ex Montagu	10.54
ΕΠΙ-ΖΗ-ΝΩ-ΝΟΣ Symbol as above.		
146.	33-43 Munich	....
147.	34-44 Vienna	11.08
148.	34-45 Berlin	10.62
149.	35-46 Br. Mus. Cat. 21	10.56
150.	35-47 a. Berlin	10.10
	b. Hermitage	10.55
	c. Hermitage	11.47
	d. Copenhagen	11.50
151.	35-48 Newell	10.65

THRACIAN COAST GOLD COINS 145

Serial No.	Die Nos.		Weight
152.	35-49	a. De Luynes 1773	10.20
		b. McClean 3959, Pl. 144, 11	10.58
153.	....	Berlin	10.52
154.	....	Soth., 1904 (Gentleman) 186	10.57
ΕΠΙ-ΗΡΑ-ΚΛΕΙ-ΔΟΥ Symbol as above.			
155.	34-50	McClean 3960, Pl. 144, 12	10.57
156.	35-50	a. Baldwin	10.22
		b. Br. Mus. (Num. Chron., 1924, 5)	10.98
157.	35-51	Hermitage	10.55
ΕΠΙ-ΖΗ-ΝΩ-ΝΟΣ MA in place of symbol on obverse.			
158.	36-52	a. Ward 426A	10.48
		b. Egger XLV, 452	11.00
159.	37-53	Hermitage	10.54
ΕΠΙ-ΖΗ-ΝΩ-ΝΟΣ Letter A(?) in place of symbol on obverse.			
160.	38-54	Athens 954	(Plated)

Persian staters

11.50	= 1	10.50-10.59	= 19
11.40-10.49	= 2	10.40-10.49	= 4
11.30-11.39	= 4	10.30-10.39	= 2
11.20-11.29	= 8	10.20-10.29	= 3
11.10-11.19	= 4	10.10-10.19	= 2
11.00-11.09	= 12	10.00-10.09	= 3
10.90-10.99	= 19	8.99, 9.76	= 2
10.80-10.89	= 11		—
10.70-10.79	= 8		114
10.60-10.69	= 10	Norm ca.	10.90 gm

Average of 18 high weights (one for each magistrate)
= ca. 11.13 gm

AENUS

As no gold coins of Abdera are extant, we pass to Aenus, the most easterly of the cities minting gold on the Thracian coast and the one most likely to show Asiatic influence. Its numismatic history is comparatively simple. About 480 it began to strike coins on a so-called light Attic standard similar to that used in the Thracian Chersonese at the beginning of the fifth century¹ and to that used later at Maroneia toward the end of the century.

The standard became gradually lighter until about 412, when the coins show a marked decrease in weight.² Henceforth Aenus struck coins which were almost identical with those of cities using the Chian standard. In fact, Professor Gardner calls the standard of Aenus Chian.³ But it is doubtful whether it is any more Chian than Persian, even though the weight of the stater accords with the Chian standard. We have seen that the tetradrachms of the light Attic standard were tridrachms of Persian weight. This is as apparent in the coins of Aenus as in those of Maroneia, for Aenus after about 440 was striking small coins, called by Strack

¹ Head, *Hist. Num.*, 246 f.; Gardner, *Anc. Coinage*, 274; Strack, *op. cit.*, 132, 152.

² Strack, *op. cit.*, 150 ff.

³ Gardner, *Anc. Coinage*, 274; cf. Head, *Hist. Num.*, 246 f.

tetrobols,¹ which are nothing but Persian hemidrachms and weigh exactly one sixth as much as the light Attic tetradrachms. Twelfths however formed the great mass of the currency of Aenus during this period when Aenus and Abdera were suffering economic decline through the closing of their trade routes by the Odrysian empire. There are only two known issues of drachms. Thus of the currency of Aenus between 440 and 412, all but two issues of drachms find a place in the Persian system.

In lowering her standard to "Chian" weight, Aenus, so Strack suggests, suited her currency to the needs of foreign trade, by making her staters conform to a tetrobol of about 2.60 gm. This coin with the diobol of about 1.30 gm was a great favorite in and about the northern Aegean during the first half of the fourth century and it played a great role in the coinage of Aenus between 412 and 376.² This international fractional currency was minted in the Chersonese, at Parium, Lampsacus, Cius, Calchedon, Byzantium, Mesembria, Apollonia, Abdera, and Maroneia.³

¹ Strack, *op. cit.*, 150 ff. His weight for the tetradrachms is 16.50 gm (ca. 255 grs.), for the tetrobols 2.76 gm (ca. 42.5 grs.). Whether we call these small coins light weight Attic tetrobols or Persian hemidrachms depends upon the time and place of issue, as in the case of Abdera. Around 440 they are to be considered Attic tetrobols. About 412 they are undoubtedly Persian hemidrachms. The same is true of the staters, whether light Attic or Chian.

² Strack, *op. cit.*, 153 f.

³ Strack, *op. cit.*, 154.

There is thus a close connection between Aenus and cities that were using the Persian standard toward the end of the fifth century, particularly Byzantium and Calchedon. These two important cities struck Persian drachms of 5.18–5.44 gm (80–84 grs.) just about the time that Aenus was accommodating her currency to the Persian standard, Calchedon about 411, Byzantium probably somewhat earlier. Calchedon had previously used Chian drachms of *ca.* 3.95 gm (61 grs.).¹ The two cities were minting Persian hemidrachms as well.² Thus as Aenus issued no Chian drachms after 412, and only a few drachms of light Attic weight in the years immediately preceding,³ we are certainly justified in considering the tetradrachms after 412, and probably even a little before, Persian tridrachms.

Turning now to the gold piece of Aenus weighing 2.11 gm (32.6 grs.) we find that this coin comes as near to being a coin of Attic weight as any we have considered. Nevertheless it is apparently under weight. As the coin stands today, it is the least bit heavier, .01 gm, than the norm for a quarter daric, though well within the range of weights exhibited by extant darics.⁴

¹ Gardner, *Anc. Coinage*, 268 f., 290. 306 f.

² *Ibid.*, 307.

³ Strack, *op. cit.*, 150 ff. The drachms are described on p. 166. Their symbols, ivy and laurel, are the same as the symbols of tetradrachms Nos. 286, 286*, described on p. 264, coins which perhaps come at the end of the period 440–412 (p. 134).

⁴ Regling, *Klio*, XIV, 1915, pp. 91 ff., gives the norm as 8.40 gm, the maximum weight as 8.83.

While this is not the place to discuss the standard of the fourth century gold coins of the Greek cities of Asia Minor, it is worth noting that the long series of Lampsacene gold staters, which Professor Gardner thinks were minted with direct reference to Athenian gold coins and followed their standard,¹ fall far short of Attic weight. The heaviest weighs only 8.56 gm and the norm is clearly under 8.45 gm.² Even though we take 8.45 gm for the norm, the Lampsacene gold stater can not be considered anything but a daric stater raised by a very small amount. But whether we estimate the difference between the daric as $1\frac{1}{2}$ centigrams with Miss Baldwin or as 5 centigrams, we are figuring to a nicety almost impracticable.

The early fourth or late fifth century coins of Abydos possibly show the same high form of the daric standard, likewise the Ephesian gold coins. Thus the existence of a standard slightly heavier, one might almost say infinitesimally heavier, than the daric seems to be proved.³ Possibly the coin of Aenus is to be classed with the staters of Lampsacus as adhering to this standard.

Nevertheless, if it were not for the close relations

¹ *Anc. Coinage*, 330 ff., 337.

² Baldwin, *Gold Staters of Lampsacus*, *A. J. Num.*, LIII, 1924, p. 41, places the norm between 8.40 and 8.42 gm, with the statement that the generally accepted norm of 8.415 gm is confirmed by her table of weights.

³ Cf. Lehman-Haupt, Pauly-Wissowa, Supp. III, s. v., *Gewichte*, 620.

between Aenus and the cities which revolted from Athens in 411, cities using the Persian standard in one form or another, Lampsacus, Byzantium, Chachedon, Cius, Abydus, and Abdera, the weight of our coin and its worn condition might allow us to agree with Professor Gardner as to its origin and standard. There are other reasons, however, for thinking that imitation of Athens had nothing to do with the minting of gold by Aenus. Whether Aenus revolted or not, the town would have needed funds to coöperate with the rebellious subjects of Maesades for the purpose of freeing the Hebrus valley and the route to the Black Sea from Odrysian overlordship, and since Greek cities outside of Asia Minor usually struck gold only when their other resources were exhausted,¹ it is not at all improbable that the coin was minted some time between about 415 and 408. Strack has shown that Aenus was poverty-stricken during the height of Odrysian power.²

Almost immediately after the death of Seuthes (*ca.* 412) and the expulsion of the petty prince Maesades from the district east of the Hebrus River, the prosperity of Aenus began to revive. That Aenus was instrumental in some measure in the liberation of the Hebrus valley is suggested by the obverse type of the town Cypsela, which now being freed from Odrysian domination began to strike

¹ Cf. Seltman, *Athens*, p. 80.

² Strack, *op. cit.*, 132 ff.

money. The obverse type of its first issue¹ imitates the contemporary bronze of Aenus struck just before 412.²

The reverse of the Aenus gold piece³ is striking enough to attract the attention of numismatists, a terminal figure of Hermes on a throne. That this was a representation of a cult statue is clear, but I think no one has suggested that the use of the cult statue as a coin type, a choice most unusual in the fifth century, was an emphatic way of calling upon their patron god to bring financial aid to his impoverished protégés. The type was used on three distinct occasions in the history of Aenus, and each time it synchronizes with some crisis in the affairs of the city. As a symbol it is found on tetradrachms of light Attic weight struck while Aenus, although still prosperous, was on the point of losing control of the trade route to Apollonia through the growth of the Odrysian empire under Sitalces.⁴ In the fourth century, just before it was incorporated in the Macedonian empire, when the Odrysian princes had a second time destroyed the city's prosperity, the enthroned Hermes became the ordinary reverse type of the drachms.

¹ Cf. Pl. I, M.

² *Ibid.*, 172-174, Nos. 309-316; Imhoof-Blumer, *Griech. Münzen*, pp. 6 f.

³ Pl. I, F.

⁴ Strack, *op. cit.*, pp. 156 ff., Nos. 159-160. These coins, minted about 450, show that the statue was one of the city's treasures.

of Aenus.¹ Thus the use of the type on the gold coin may point to the revolt of 411 or a determination on the part of Aenus to throw off the economic yoke of the Odrysian rulers.²

¹ Strack, *op. cit.*, pp. 138, 145, 153 f., 186 f., Nos. 362-368, Plate V, 5. These drachms were minted between 365 and 341. For a bronze coin, also of the fourth century, see pp. 146, 188, No. 369, Plate V, 10.

² For the gold coin, see *B. M. C. Thrace*, p. 77; Strack, *op. cit.*, p. 185, No. 361. It may not be fanciful to think that the statue was the actual source of the metal from which the coin was minted. Athens melted the golden Victories of the Acropolis to provide funds for the equipment of a fleet, turning the metal directly into coin, and about 413 Syracuse had apparently procured gold for her coins from images and dedications. A number of other cities in Sicily supplied their needs from similar sources. Gardner, *Anc. Coinage*, 292. That Aenus knew what was being done in Sicily is clear from the head of Hermes, no longer in profile, but appearing full-face on the coins of Aenus very soon after the adoption of the full-face type by Syracuse. Syracuse likewise struck fractional gold coins. Because of the well-attested practice of turning statues and dedications into coin, resorted to in times of stress, possibly Aenus and other cities whose coins we are studying did exactly the same thing. If so, we can understand why so few coins were minted. The supply of metal soon gave out. The reappearance of the type on fourth century coins, after the melting of the statue, might be explained in various ways. Perhaps it signifies the dedication of a new statue to their patron god, a dedication inspired by a feeling that the impending dangers were brought upon them by their neglect to restore the statue that had served them so well in the hour of need. The archaic statue of Hermes should be compared with an archaic statue of Athena on a tetradrachm of Assos, Babelon, *Trailé*, II, 2, 2302, Plate CLXIII, 28. Babelon dates it between 430 and 400. Gardner, *Anc. Coinage*, 308, thinks it hardly possible that an archaic statue should have been used as a coin type in the fifth century. But we have seen that the enthroned Hermes appears as a symbol on the coins of Aenus about 450, and Professor Gardner has dated the gold coin with this type between 411 and 394. A second

Much depends upon the date of this coin. If it was minted between 365 and 341, as von Fritze and Strack after careful study of the coins have concluded,¹ what I have said must be modified to suit the political exigencies of the fourth century. Moreover, the discussion of the fifth century coin standards of Aenus is no longer apropos. But the evidence for a fourth century date is not wholly convincing. Much can be said for the preceding century.

If one looks only at the reverse, the unusual type, the inscription unabbreviated and running downward in the field to the right of the type, the staff of Hermes as a symbol identical with that of a fourth century drachm,² all of these point to a date contemporary with the last silver coins of Aenus struck about the middle of the fourth century.³ But if one regards the obverse alone, there will be no hesitation about placing it before 412,

coin of Assos with the archaic statue of Athena, Naville IV, No. 802, a drachm differing in many particulars from the tetradrachm, but in style and workmanship fully as good, does not enable me to decide between the two authorities. Still it is clear that these two coins are intermediate between the coins ascribed by Babelon to the fifth century and those which are unquestionably of fourth century date. Whether they were issued to celebrate the break-up of the Athenian empire in 405 or in commemoration of some other notable event in the history of the city, can not be determined. At any rate, they are nearly contemporary with the gold coin of Aenus, if the latter was struck in the period to which Professor Gardner has assigned it.

¹ Strack, *op. cit.*, 145, 154, 185.

² *Ibid.*, p. 186, No. 364.

³ *Ibid.*, p. 145.

as von Fritze recognized. The head of Hermes in profile, so similar to the types before 412 and so dissimilar to the full or three-quarter face on all later coins, the round petasos which had been replaced by a cap of different style by the middle of the fourth century, the character of the workmanship, all suggest a fifth century date. These points of difference, except for the character of workmanship, which is perhaps rather a matter of personal opinion, are unquestionable and absolute. There are no exceptions.

When we come to study more closely the details of the reverse, we find that the shallow incuse of the gold coin is found on numerous small silver coins dating before 412.¹ The staff of Hermes was used as a symbol on coins of two denominations between 440 and 412.² Furthermore Strack thinks that the staff of Hermes may not be analagous to the other symbols which he interprets as marks by which the magistrate in charge of the mint

¹ I cite only examples with "feld flach vertieft," the phrase used to describe the gold coin, Strack, pp. 166 ff., tetrobol, No. 292; diobols, Nos. 305, 306. There are seven other varieties with "feld schwach, leicht, or kaum vertieft" out of seventeen issues of tetrobols and diobols between 440 and 412. More than half resemble the gold coin in this respect.

² Strack, *op. cit.*, p. 165, describes a tetradrachm, No. 288, with the staff of Hermes as a symbol, but as the specimens differ so in style he questions whether they should not be assigned to different years, p. 134, note 2. Some of these Strack would undoubtedly assign to the very end of the period 440-412. The diobol with this symbol, p. 170, No. 305, has "feld flach vertieft", and certainly it was struck just before 412.

could be held responsible.¹ For an extraordinary issue of gold coins such marks of identification would not have been essential and thus the symbol of the magistrate could be replaced by the symbol of the god. On the bronze of the period before 412 the staff of Hermes appears as the obverse type with or without symbols in four of the five classes into which Strack has divided the early bronze coins.

While there is no example of an unabbreviated inscription on the coins before 412, it is quite clear that the peculiar nature of the type made a variation from the established custom possible. In most of the small coins with a goat for reverse type, the curling horns made the full inscription impossible. Likewise the type obviously called for an inscription above the goat, although once it is found below. On the gold coin there was no place for the inscription except at the side, and the unencumbered field made the full inscription possible. Then with the precedent set by the gold coin, the engravers of the next period, freed from this as well as from other conventions, usually gave the name of the city in full. But when one studies the coins of the last period, 365-341, it is evident at once that the throne would have permitted an inscription either above or at the side.² The engravers chose the side position in preference to the usual one above,

¹ Strack, *op. cit.*, 134.

² Strack, *op. cit.*, plate V, 5.

not because the type required it, for it did not, but for some other reason. The reason, I think, is obvious. They were imitating the gold coin which they had taken for their model.

The bronze coins which have been tentatively assigned to the period from which the authors of the Berlin Corpus believe our gold coin to have come show how little dependence can be placed upon the form or location of the inscription. Of the three classes one has an abbreviated inscription, one has the full inscription at the side, and the other has it above.¹ The types, or in one case perhaps the inclination of the artist, were the determining factors. I have laid undue stress upon this matter of the inscription because it at first sight seems the surest evidence of a fourth century date for our gold coin, and because it is a criterion upon which Strack and von Fritze have relied.

But after all, the details of the reverse are not the best criteria, although helpful in arranging coins within a period or in determining whether a coin should be assigned to one period or another. The chief characteristics of the last silver coinage at Aenus, according to von Fritze, were the full face Hermes, the flat cap hanging over at the sides, the low relief, and the inferior workmanship.² To this list he adds the enthroned Hermes. If one compares the gold coin with the silver drachms of the

¹ Strack, *op. cit.*, 188 f.; plate V, 10, 11, 12.

² *Ibid.*, 145.

last period¹, the truly fine workmanship of the former will at once be apparent, while the slip-shod work of the latter will make it impossible to consider the two as contemporaneous products of the same mint, the enthroned Hermes notwithstanding.

The differences between the obverse of the gold coin and the obverses of the fourth century silver coins are hardly more marked than the resemblances between it and the small silver coins struck just before 412, as can be readily seen by a study of Strack's plates. In fact the obverse of the gold coin resembles no others in the whole period of the coinage of the city. Furthermore, the weight of this coin would almost make it necessary for us to assign it to the period of the light Attic standard before coins of Chian weight had been struck.²

¹ A comparison of the silver drachm pictured in Strack, *op. cit.*, plate V, 5, with the gold coin immediately below it, plate V, 6, will make my point clear.

² To bring the coinage of Aenus before 341 into line with that of Philip (Strack thinks that the coinage of Philip had been successful in competition with the international currency of small coins and had driven them out of circulation) and to give Aenus a currency in two metals parallel to that of Philip, Strack has had to depart from the statistical position he has taken for determining the normal weight of the coins of Aenus. In his tables, p. 151, he gives 3.74 gm as the average weight of the drachm between 365 and 341. This would be an ordinary weight for a Chian drachm, but it is higher than the Phoenician-Abderite weight, 3.62 gm, of Philip's coins. The weight in the tables was obtained by averaging the weights of the highest specimens of the seven issues of drachms. This is the method Strack used for previous issues of all denominations except diobols. But an average of the weights of all specimens of this class of drachms gives 3.61 gm as a norm, and this assumption of an "al marco-Prägung" is at the

If the gold coin was struck just before 412, Aenus had a currency in two metals in which the gold coin was three-quarters as heavy as the contemporary tetrobols, or three halves as heavy as the more numerous diobols, a relationship between gold and silver that we have learned to expect.¹ Thus it is almost certain that the Asiatic ratio between gold and silver of thirteen and a third to

basis of his conclusions as to the relations between Aenus and Philip. Strack, *op. cit.*, 138, 153 f. Strack also says that the gold coin, whose weight unfortunately because of mutilation can not be determined, points in the same direction, that is, shows that the monetary system of Aenus was of Macedonian origin. Thus Strack had to alter the statistical basis of his inquiry before he could relate the gold coin to the silver coinage of the period 365 to 341. But after all, it is hardly likely that Philip's coinage could have exercised any influence in eastern Thrace before the subjection of Abdera about 352, and even then Philip's currency was in its infancy, for his adoption of the Phoenician standard for silver probably does not antedate 357, and his first issue of gold staters probably did not appear until at least four years after the conquest of Abdera. Certainly it did not antedate 352. For a discussion of Philip's coinage, see my paper, *Num. Chron.*, 1923, pp. 169 ff. Finally, Strack says that the issue of drachms must have lasted from 15 to 30 years. (Note the discrepancy between p. 137, note 1, and p. 138, note 3, 15-25 years, 20-30 years). As the minting of drachms ended in 341, it must have begun at least by 356, when it is inconceivable that Philip's currency had exerted any far-reaching influence. We can therefore reject as improbable the hypothesis that the coinage of Aenus, whether silver or gold, was modelled on that of Macedon.

¹ The gold coin weighs 2.11 gm and the contemporary tetrobols about 2.76 gm. Strack, *op. cit.*, p. 151. The slight difference—the tetrobol should have weighed 2.82 gm to make it $\frac{4}{3}$ of the gold, which by the way is the exact weight of the equivalent coin of Abdera, *ibid.*, p. 35—can be disregarded, for it may be due to faulty weighing at the mint or to faulty modern reckoning.

one was prevalent at Aenus,¹ and that the gold coin was intended to pass for ten tetrobols, twenty diobols, five Persian drachms, or one and two thirds of the tetradrachms of the city,² an exchange that was perfectly simple because of the denominations struck at Aenus.

Of this coin of Aenus only this remains to be said, that in weight it is very close to the small coin of Thasos, the first issued by that city, and to a gold piece minted by Evagoras I of Salamis only a little later.³

¹ I have generally adhered to the Asiatic ratio of $13\frac{1}{8}$: 1 in the text for the sake of uniformity and because I think it is approximately accurate. But local factors may have made it expedient to deviate from the ratio slightly. In the case of Aenus, for example, if we should consider the extant gold coin as originally having been exactly correct in weight and then if we make the necessary allowances for wear, we must admit that the existing tetrobols of the city are either underweight, which is very likely true, or that the ratio between gold and silver was more nearly 13: 1 or less, depending upon how much the coin has lost in weight.

² Strack, *op. cit.*, 134, has shown that the ordinary currency of Aenus between 440 and 412 consisted mainly of diobols. Thus it would not greatly matter if the gold piece did not exchange for an even number of staters.

³ Gardner, *Anc. Coinage*, 328. That the gold coin of Evagoras weighing 2.04 gm is not an Attic triobol should be apparent from the weight, which is a trifle light even for a quarter daric, from the region in which it was struck—the Attic standard had not penetrated into it—and from the Persian standard used in Salamis at this time for silver. The adoption of the Attic standard for gold here would have been as inexplicable as the coinage by Canada of a five dollar gold piece weighing only as much as the British sovereign. Cf. Babelon, *Traité*, II, 2, 692. 707 ff.

AMPHIPOLIS

Returning now to the west, we come to Amphipolis on the Strymon, the possession of which Athens had been trying to regain since its rebellion in the time of Brasidas. This unchastised rebel is almost the last city one would expect to find following the example of Athens. Her silver coins, which began during the Peloponnesian War, follow the Phoenician standard of Abdera which became so popular in the Chalcidic peninsula at this time.¹ Nevertheless they are unique for this period, unless we equate them with the slightly heavier coins of Thasos and Neapolis. All of the other cities that adopted the Phoenician-Abderite standard followed the Macedonian practice of dividing the stater into six drachms, coins that are ordinarily called tetrobols. Amphipolis, however, divided the stater into four drachms. Only at the very end of her autonomous coinage do we find Amphipolitan tetrobols.²

Thus the coinage of Amphipolis demands an explanation. It is possible, of course, that the adoption of the quarter stater instead of the sixth as

¹ Gardner, *Anc. Coinage*, 280; Head, *Hist. Num.*,² 215 f.

² The only Amphipolitan tetrobols with which I am familiar have a wreath about the torch (Pl. I, L), and are contemporary with staters which show the same obverse type, staters placed by Regling, *Z. f. Num.*, XXXIII, pp. 56 ff., at the very end of the autonomous coinage of Amphipolis. Since the coins of Philip include this denomination besides the quarter stater, I presume that the Amphipolitan series with the wreath reverse is to be dated after 357.

a unit was due to the Athenian character of the population. But the majority of the population after 424 was at no time Athenian. Even the inscriptions on the coins show that the non-Athenian element was dominant, for except on the unique gold didrachm and on a few fourth century issues the legend reads AMΦΙΠΟΛΙΤΕΩΝ, not ΤΩΝ as it would if Attic engravers had made the coins.¹ In other respects Amphipolis did not run counter to the tendencies of the time and the region. Thus when we find the Amphipolitan coinage deviating from the custom that was almost universal where the Phoenician-Abderite standard was used during the last years of the fifth century and the first half of the fourth, we naturally search for the purpose of this deviation.

In the first place it should be noted that in the Amphipolitan coinage the staters seem to have outnumbered the drachms and other small coins. If there are only a few of these small coins, it would make comparatively little difference which divisional system is used. But one may ask where Amphipolis got the necessary change for transactions of small value. For the smallest transactions Amphipolis depended upon bronze coins, but bronze would be inconvenient for purchases beyond the value of a drachm.

¹ Regling, *op. cit.*, p. 62, note 2, shows that the coins with the ΤΩΝ ending do not come at the beginning as Perdrizet, *B. C. H.*, XXXV, 129, has said. He assigns them to the eighties or seventies of the fourth century. But see p. 168 *infra* for a revision of his dates.

When we compare the coinage of Thasos and its abundant issues of drachms with the coinage of Amphipolis, the absence of intermediate denominations is the more peculiar. Thus there are apparently two peculiarities in the Amphipolitan currency in need of explanation. If we work on the theory that the scarcity of drachms is somehow connected with the division of the stater into quarters, it may be possible to ascertain the cause of these irregularities. Since Amphipolis did not imitate her Chalcidic neighbors in coining sixths, she may have been imitating some other neighbor with whom her commercial relations were particularly close, possibly Macedon.

When Archelaus came to the throne in 413, the coinage of Macedon was identical with the form of the Phoenician standard adopted in the Chalcidic region during the Peloponnesian War. In fact, the Chalcidians could have got their standard from no other place. But Macedonian currency was not at all abundant. Archelaus, however, in his attempt to make Macedonia economically self-sufficing, minted coins in abundance and changed from the old standard to the Persian. It is still a puzzle just why he chose the Persian. Neither Abdera nor Maroneia could have had much contact with Macedonia at this time, and our study has showed that the normal form of the Persian standard was not adopted by Maroneia until after the death of Archelaus. The Persian tridrachm was used only

after 404. At Abdera there may have been a few years, 411-408, when the Persian standard was used before the end of the War, but Macedonian imitation of Abdera is no more explicable on this account. Nevertheless, the fact of the standard being practically identical with Persian is unquestionable.

In the coinage of Archelaus there is one peculiarity. He struck no coins between staters and diobols. In fact, although he had changed the standard of Macedonian coins he did not change the divisional system, for, besides smaller divisions, he struck staters and sixths just as his predecessors had done, and unlike Amphipolis he minted about as many diobols as staters. Since the Macedonian diobol was an Amphipolitan hemidrachm, Amphipolis may perhaps have depended upon Macedonian diobols for small coins. Thus, while the staters of the two currencies were different, trade between Amphipolis and Macedonia was facilitated by the two to three ratio between the two standards and the dependence of Amphipolis upon the Macedonian diobol. It may be that there was an informal monetary understanding between the two states, or perhaps some sort of an entente by which Amphipolis became the port for neighboring parts of Macedonia. If the explanation given above is not the true one, one must admit that there was a connection between the coinage of Archelaus and Amphipolis.

This is more apparent when we study the obverse type of the two extant gold coins minted by Amphipolis, a young male head, with short curly hair, bound with a taenia.¹ Since the head is in profile, it is unlike the Apollo of the more famous Amphipolitan silver coins. In this and other respects it distinctly resembles coins of Archelaus, Aeropus, and Pausanias struck between 413 and 389.² While it proves nothing as to the connection between Amphipolis and these Macedonian kings, taken in connection with our previous conclusions, it is significant of the influence of Macedonia upon Amphipolis.

These gold coins weigh 8.59 gm and 4.17 gm. The smaller coin is about the same as the heavier of the two gold coins of Maroneia, while the larger is practically identical with the fourth century gold coins of the Chalcidic League. As the Amphipolitan triobol was a Macedonian diobol, the Amphipolitan stater would equal eight sixths of the Persian staters of Macedon. Thus gold coins of daric and half daric weights would readily fit into both local currencies. They would equal ten and five Macedonian staters, or sixty and thirty Macedonian diobols (Amphipolitan triobols). In other words, Amphipolis like Maroneia minted a gold coin that would exchange for fifteen drachms, fol-

¹ Jameson 1941; McClean 3203; Pl. I, D, E.

² Head, *Hist. Num.*,² 215 f.; Regling, *Z. f. Num.*, XXXIII, 59 note.

lowing a custom that was prevalent where the Phoenician standard was current. The gold didrachm, following the usual custom, can be equated with the silver tetradrachms on the basis of two gold pieces for fifteen silver staters.

But while such an exchange value for the gold coin would be convenient in a place like Thasos where drachms formed a large part of the currency, at Amphipolis with its scarcity of drachms, it might be a little awkward. Only if Amphipolis intended the gold for Macedonian trade would it be perfectly convenient.¹ There is one further possibility, *viz.*,

¹ The gold coins may have been struck as a sort of contribution to the campaign funds of one of the rival claimants for the Macedonian throne in the first years of the fourth century, possibly one of the kings who used this type for his own coins. We know that the Chalcidic League on more than one occasion intervened in Macedonian affairs and also that there was hostility in the time of Amyntas between the League and Amphipolis. Amyntas received support for his tottering throne from the Chalcidians, and there is extant a treaty between them which names Amphipolis as a joint enemy (Ditt.,³ 135). Amyntas needed assistance not only against threatened invasions but also against a rival claimant Argaeus, who actually drove Amyntas from the throne in 383 and ruled until 381. It is nowhere stated that Amphipolis was backing Argaeus, but the fact that Amphipolis is mentioned in the treaty cited above as an enemy with whom neither party to the treaty could make peace without the consent of the other leads me to suppose that Amphipolis hoped in this way to retain commercial privileges that the Chalcidians threatened to usurp. Further evidence for the hostility of Amyntas to Amphipolis is to be found in his willingness to surrender all claims to the city, explicitly recognizing those of Athens, Aesch., II, 32 f.; Ditt.,³ 157. Much that is dark in Macedonian history before the time of Philip can possibly be explained by the hypothesis that Amphipolis and the Chalcidians were rivals for the trade of Macedon and therefore supported claimants friendly to their interests.

that the two gold denominations exchanged for thirty-two and sixteen Amphipolitan triobols (Macedonian diobols), and four or two staters. This would be more convenient in Amphipolis and not particularly inconvenient in Macedonia, for the bulk of Macedonian currency consisted probably of diobols. But this hypothesis requires us to assume that the Amphipolitan gold coins used a standard slightly higher than the daric, one close to the Attic gold standard, and this assumption is apparently borne out by the weight of the gold didrachm. In other words, the weight of the gold coins might have been almost identical with Attic, because the silver standard and the gold-silver ratio demanded slightly heavier coins than the daric and half-daric.

The Chalcidian gold coinage furnishes a close parallel. In a recent discussion of this coinage I followed Professor Gardner in assuming that the standard was taken directly from Athens,¹ but I did not take into account the ease of exchange and the peculiarities of the Chalcidic monetary system. At thirteen and a third to one, a daric of full weight would equal eight staters of only 14.00 gm, but the Chalcidian silver stater, like the Amphipolitan, weighed from .25 gm to .50 gm more. While this is a slight inequality, it was probably sufficient to induce the Chalcidian moneyers to add to the daric weight enough to make the gold

¹ *Num. Chron.*, 1923, pp. 179 f.

coins conform to the exchange value and pass for eight silver staters. Otherwise the gold stater would have equalled seven and a half silver staters or forty-five of the small coins of 2.40 gm.¹ But it would be much more convenient to have a gold coin equal to forty-eight of these pieces. In some such way as this, either at Amphipolis or at the Olynthian mint, the heavy gold standard used by the Chalcidians must have arisen. Whatever name we give to this standard, I feel sure that neither the Amphipolitan nor the Chalcidian gold coins were Attic didrachms (or drachms) and it is also evident that the gold silver-ratio was not twelve to one when they were issued.

The date of the Amphipolitan issue or issues is easily determined by reference to the dated Macedonian coins of Archelaus and his two successors where the same youthful head, bound with a taenia, is used for obverse type. Regling, who has made a careful study of the coins of Amphipolis, dates the drachm between 400 and 379,² while Head and Gardner have dated it about 400.³ Since the youthful head is not used by Macedonian kings after about 390, I see no reason for thinking that it was minted after that year. Jameson dates his gold stater about 400, and I am inclined to think

¹ Since the Chalcidians minted no quarter staters, we must call their sixths drachms.

² *Z. f. Num.*, XXXIII, p. 59 note.

³ Head, *Hist. Num.*,² 215; Gardner, *Anc. Coinage*, 327 ff.

that this is correct, even though the tripod symbol and the spelling AMΦΙΠΟΛΙΤΩΝ, not AMΦΙΠΟΛΙΤΕΩΝ, belong in Regling's second group, which he thinks began *ca.* 390. Regling was not acquainted with this piece. The drachm which has a bunch of grapes as a symbol and the ending ΤΕΩΝ, Regling considers contemporary with the first and second groups of Chalcidian tetradrachms. If we date the first Chalcidian tetradrachms with Gaebler¹ in the last ten or fifteen years of the fifth century, there will be no difficulty in dating the transition between Groups I and II of Amphipolitan tetra-

¹ *Z. f. Num.*, 1925, pp. 193 ff. One can argue both ways as to the comparative dates of the Chalcidian and Amphipolitan series. A date in the nineties of the fourth century for the beautiful Amphipolitan gold stater makes it necessary to date the earlier Chalcidian coins, as I tried to prove some years ago, and as Gaebler has since concluded, in the fifth century. But Gaebler, in rejecting my date, *ca.* 432, for the first Apollo type Chalcidic coinage in favor of one about fifteen years later is probably too conservative. The coins of the whole region from 450 to 400 show a remarkably rapid artistic development which makes it difficult to think that the earliest Chalcidic Apollo drachms were struck about 415 and that the earliest tetradrachms were contemporary with the first Thasian tetradrachms, to take only one example out of many. It is necessary also to consider carefully the date of the Amphipolitan initial issue in the light of the artistic development of the neighboring Greek cities. The assumption that Amphipolis imitated Syracuse and that its coinage was not antecedent to 413 is purely arbitrary, for the imitation might well have been reversed. The Amphipolitan gold stater was found in Sicily. It was a part of the Avola gold hoard of 1888, in which there were a number of Syracusan gold pieces dating from *ca.* 413. Moreover, from 424 to 413, according to the commonly accepted theory, Amphipolis struck no coins, and this fact in itself is sufficient to raise *a priori* doubts as to the date 413-408 for the initial issue.

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drachms about 400 and in making our gold coins contemporary with the silver issues of Macedonia which have a similar type, *i. e.*, in dating them before 390.

ATHENS

Before discussing the first gold coins of Athens, it will be helpful to summarize the results of our study. Thasos with its coins of 2.02 gm and 2.78 gm, Aenus with its gold piece weighing 2.11 gm, and Maroneia striking coins of 4.01 gm, show the influence in one way or another of the Persian standard. They issued coins on the standard of the daric. Possibly the Amphipolitan pieces should be considered darics and half darics increased by a small amount. At Thasos even the type suggests imitation of the Persian Archers. Most of these coins, provided that the ratio between gold and silver was about thirteen and a third to one, were easily exchanged for the silver coins of their respective cities of issue. It is noteworthy that the Persian custom of minting a gold coin three fourths as heavy as a silver unit is found at Thasos, Maroneia, and Aenus. Then the gold pieces equalled ten silver pieces, except at Maroneia where no thirds of the Attic tridrachm stater were struck.

To the coins of Amphipolis the ratio of three to four does not apply, but the relation between the Persian and Phoenician standards was such that coins weighing a little more than darics and half-darics would fit into the Amphipolitan currency with little difficulty. Possibly we have here a modification of the custom at the basis of the Phoenician

standard by which fifteen silver units exchange for two units of gold. Even the peculiar weight of the Maroneitan coins of about 3.20 gm is explicable on this basis. Finally the Thasian coins of about 3.90 gm are of the Chian standard, possibly slightly raised for the purpose of exchange.

It is difficult to prove that the ratio between gold and silver on the Thracian coast at the end of the fifth century was taken from Persia, as seems to me *a priori* probable, but there is one indication that gold was not undervalued and that the ratio between the two metals was not as low as it was in Athens in 406. There the ratio was probably twelve to one, an undervaluation of gold in comparison with Persia or even with Athens before the Peloponnesian War. The result of this undervaluation was that gold coins would almost immediately disappear from circulation into private hoards, the melting pot, or foreign hands. Gresham's Law was as true then as today, and we may take the good preservation of the Attic coins of 406¹ that escaped the melting pot as evidence, first, that the ratio between gold and silver on which this coinage was based was an artificial one that could not be maintained in the market place because it undervalued the gold, and secondly, that the gold coins would not leave Athens in great quantities except as bullion, even though they may not have been actually melted before leaving the city.

¹ Koehler, *Z. f. Num.*, 1898, Plate I, 1-7. Cf. also Pl. I, I, J, K of this monograph.

On the other hand, some of the coins we have studied show hard usage.¹ Applying Gresham's Law to them, and using the worn condition of the coins as a criterion of their popularity as a circulating medium, we are justified in concluding that they were not undervalued in terms of silver. Thus the Asiatic ratio, or one very close to it, must have prevailed, for if the ratio had been much lower than the Persian a profit could have been obtained by withdrawing them immediately from circulation and exporting them to Asia.

But since hoarding was an almost universal custom among the Greeks, Gresham's Law may have had nothing to do with the preservation of the extant coins, and my assumption that the gold coins of Athens were undervalued may be entirely unwarranted. In that case it might be necessary to explain how the cities of the Thracian coast could have based their coinage on the ratio of thirteen and a third to one when gold at Athens was worth only twelve times as much as silver. This is a question I have asked myself. There is only one answer. The Thracian coast was in close touch with Asia Minor, and through the Peloponnesians, even with Persia itself. Thus the Persian ratio would determine that of the Thracian cities. This answer, however, is not entirely satisfactory, for until we understand how the ratio of twelve to

¹ Others, like the Paris specimen of the lighter Maroneitan issue, were possibly preserved simply because they were heavier than the norm.

one came to prevail in Athens and how such divergent ratios can have existed side by side in Greece, the problem is only partially solved.

We know that shortly before the Peloponnesian War the value of gold in Athenian markets bore a close relation to the mint value in Asia. Gold was bought for the statue of Athena at the ratio of fourteen to one.¹ The difference between the mint ratio in Persia and the market value in Athens is therefore but five per cent., a difference that can be easily explained. As Athens was not a gold-producing country, the metal had to be imported at prices that would pay the cost of importation just as in the case of any other commodity, and as gold was a commodity in general demand, the world market would determine the basic price. One can hardly question that the Persian mint ratio was accepted as the base to which was added a differential equal to the cost of bringing it from Asia to Athens. For this charge, five per cent would be most moderate considering the risks and the large profits then obtained from commercial ventures.

What caused the fall in the price of gold in the Athenian market during the Peloponnesian War?

¹ Reinach, *L'Histoire par les Monnaies*, p. 48; *I. G. I²*, 352, 355, as interpreted and restored by Dinsmoor, *A. J. A.*, XVII, 74 f. Tod's statement, *Camb. Anc. Hist.*, V, p. 22, that gold in 434-3 was valued at $17\frac{3}{4}$: 1 is based on the assumption that the figures for the weight (*I. G. I²*, 352) are completely preserved. Since the stone is broken at the right, such an assumption is hazardous, and it seems better to assume with Dinsmoor both that figures have been lost and that the ratio in 434-3 was still 14: 1.

That question has never been answered satisfactorily. Silver, not gold, was the measure of value in Athens. Hence a rise in the cost of living would tend only to decrease the value of silver in terms of what it would buy. A decrease in the purchasing power of silver would mean, *ceteris paribus*, an increase in the value of gold in terms of silver. This of course might be offset by an increase in the supply of gold, but we know of no such increase in Athens as would explain the depreciation of gold to twelve times its weight in silver. The gold darics poured into Greece by the Great King are hardly to the point, for they went to the enemies of Athens and therefore could not have affected the Athenian market. I doubt whether they affected other Hellenic markets to any great extent, for the sum of 5000 talents distributed throughout the Hellenic world over a considerable period of years¹ hardly compensated for the loss to Hellenic currency through the closing of the Attic mines during the last years of the Peloponnesian War. Though the annual production of these mines is unknown, it is probable that they produced at least 500 talents a year, or even more. Furthermore, just at the time when the mines were closed, the cost of living was increasing. Thus the higher prices would readily absorb the additional currency.

¹ See Reinach, *op. cit.*, 50 ff.; Isoc., viii. 97; Xen. *Hell.*, iii. 5, 1. Needless to say, I have not found Reinach's arguments convincing, although I have been forced to admit the fact that the gold coins of Athens were minted probably on a 12:1 ratio.

But in any case this gold can not have come to Athens, for the balance of trade during the last years of the war must have been increasingly against Athens. In 406 the crisis came, and Athens had resort to two devices, the coinage of gold and the coinage of bronze.¹

The coinage of gold proves, as does that of bronze, that Athens was hard pressed for silver, not merely the state but also the people, for otherwise the gold could have been sold in the open market for what it would bring in silver. There was little silver to be had in the local market. Thus the adverse balance of trade, draining the country of silver as it did, acted exactly as an influx of gold would have done. Gold was no more plentiful than it had been, but it was perhaps relatively more plentiful. Thus from the local standpoint of Athens the ratio between gold and silver may actually have been twelve to one.

There are two flaws in this reasoning. The adverse balance of trade would have affected the supply of gold in the country as much as, or more than, it affected the supply of silver. Although gold was not money, it could be exported and exchanged for the necessities of life which Athens could not produce during the Decelean War. In the growing scarcity of money after the closing of the mines of Laurium, individuals and the state

¹ Schol. Aristophanes, *Frogs*, 720: Gardner, *Anc. Coinage*, 295 ff. For the first gold coins minted at Athens, see Koehler, *Z. f. Num.*, 1898, *Att. Goldprägung*, pp. 5 ff.

itself parted with treasures until Athens was almost stripped of valuables that would appeal to the foreign merchants from whom Athens bought grain and fish. Thus by 406 the state was reduced to the extremity of turning its gold statues into coin. Without doubt private citizens were no better situated, in which case it can be readily seen that the adverse balance of trade had affected both gold and silver alike and that gold relatively was no more plentiful than it had been before the war.

Secondly, it is incorrect to think of Athens as hermetically sealed and unaffected by outside markets. Even if there had been an influx of gold into Athens, or if gold had been relatively more plentiful than silver, so long as Athens was buying abroad more than she sold, the ratio would not be determined by local conditions but by conditions in the rather wide area with which Athens traded. So long as the huge territory in southern Russia and around the shores of the Black Sea was not satiated with gold, there would be a ready market for Athenian exports of the yellow metal. Here again the stabilizing effects of the Persian ratio would be felt.

Returning to our original question, why Athens adopted a mint ratio in 406 of twelve to one, we may answer it by saying that the conditions of 438-7 were exactly reversed. Athens was then a purchaser and had to import and pay the costs of import. Athens was now an exporter and she had

to sell on such terms that the gold delivered would not be more expensive than if obtained elsewhere. The world market determined the price in Athens, just as truly as the world market determines the price of wheat on the farms of Dakota. Thus the ratio would be less than thirteen and a third to one, and the difference would be determined by the cost of export and the risks of the venture, which of course were not small at this time.

Thus the minting of gold by Athens on a twelve to one ratio does not prove that the ratio in continental Greece had reached that figure. We have been misled by our lack of knowledge of conditions outside of Attica, as is so likely to happen, into an unwarranted generalization. I think we have also been misled by our modern system of currency based on gold into thinking of gold as money, when in reality the money of continental Greece was silver, and gold was only a commodity like wheat and fish.

These gold coins, however, were never intended to serve as payments for imports. Otherwise there would have been no need of minting in small denominations. Staters would have been more convenient and more satisfactory for merchants engaged in foreign commerce. Instead we have drachms, triobols, diobols, and obols, coins intended to take the place of the disappearing drachms and tetradrachms. For the smaller denominations bronze coins were minted for the first time, and judging

from the scorn of Aristophanes,¹ we may conclude that the real value of a bronze coin was considerably less than the nominal value, in other words that this was token money. In fact some of it was actually silver-plated, a poor substitute for the vanishing silver currency.² Thus the gold and bronze were both minted for local circulation, to be used by the state for the equipment of the fleet, for the services of laborers reconditioning the triremes fitted out hastily and at great expense,³ and for the many incidental expenses of small amounts. Perhaps some of the money was given to the generals before they set sail for the expenses of the campaign and the payment of the sailors.

In amount, this issue of gold money can scarcely have been very large. From the scholiast on Aristophanes, *Frogs*, 720, quoting Philochoros (*F. H. G.*, I, 403, 120) τὸ (i. e., χρυσοῦν νόμισμα) ἐκ τῶν χρυσῶν νικῶν, we may assume that the basis of the issue was gold from several statues (more than two at least) of Nike which Athens is known to have possessed during the period of the Peloponnesian War. Not all of the statues, however, went into the melting pot, as fourth-century treasure-records show. Each statue weighed about two talents, and if there were originally ten, the total silver value of the statues used for coinage would have amounted

¹ *Frogs*, 725 f.

² Head, *Hist. Num.*, 373.

³ Diod., xiii, 97.

to about two hundred talents.¹ But Kolbe has argued recently, that no evidence exists for the number ten.² Thus the amount of money realized from the gold victories must remain in doubt.

Other treasures were melted at this time, as we learn from extant temple inventories. In the Pronaos, for example, everything was appropriated except a gold crown,³ the only gold item kept there; and yet the value of the treasures taken from the Pronaos was probably less than five talents. While we cannot estimate the size of the gold issue, it is probably safe to say that it would have been exhausted almost immediately, whether it was used at home for the equipment of the fleet, or abroad for the pay of the sailors. Still the fact that Athenian generals were reduced to plundering the coast of Asia Minor and exacting contributions from unwilling allies in order to provide precarious pay for their crews⁴ makes it probable that the greater part of these gold coins was spent in Athens before the fleet sailed.

Let us see whether we can trace them after they came into the hands of private citizens. Would they stay in Athens, or, if they did, would they remain in circulation? If they left Athens, where

¹ For these statues, see Babelon, *Traité*, II, 3, 88; Foucart, *B. C. H.*, XII, 291 ff.; *I. G.*, I², 368, 369; II², 1371, 1388, etc., 1686; cf. *I. G.*, I², 92; II², 403.

² *Das Kalliasdecret*, *S.-B. d. preuss. Ak. d. Wiss.*, 1927, 326 f.

³ *I. G.*, I², 255; cf. 291; *I. G.*, II², 1686.

⁴ Busolt, *Gr. Gesch.*, III, 2, 1523, 1543.

would they go, and how soon would they establish a reputation such as Attic silver enjoyed? In other words, when would imitations begin to make their appearance?

Two forces would be at work to drive the money both from circulation and from Athens, Gresham's law, and the need of money to pay for the imports of the city. As we have seen, the coins were so minted that they could compete with silver and the darics of Persia in distant markets. If we consider the gold merely as an exportable commodity, it would be more profitable to sell it at a greater price in silver than to make payments in silver coins. A merchant would then make a double profit on the transaction. He would have a cargo both ways. Thus the coins would rapidly disappear from circulation. They might also go into private hoards although not to such an appreciable extent. Yet if any one did have money to save, he would naturally choose to keep the silver to the debased bronze and the undervalued gold to both.

When and how did this money leave Athens? Assuming for the purpose of argument that some of it went with the fleet, it would never have reached the Thracian coast, for the fleet was active on the coast of Asia Minor and in the Hellespont for the next year, in fact until the final defeat of Athens at Aegospotami. If it left Athens in the course of trade, it would have gone principally no doubt to

the food-producing regions around the Black Sea. Some of it may have gone to Thrace as well, but not until the following spring. The season of active commerce had practically ceased when the coins were minted about the end of June or the first of July. There was barely time for the fleet to sail before the Etesian Winds made navigation difficult. Ships could return to Athens with the wind blowing from the north, but it was impossible for traders to sail northward after the Etesian Winds began. When they ceased the time for trading with the northern Aegean would be short. Thus in trade, the gold would first appear in northern markets in the spring of 405. In the late summer or early autumn of that year came the final Athenian defeat. Thus we have less than six months for the Athenian gold to become famous and to create emulation, a period entirely too short for the influence it is supposed to have exercised. Perhaps this period was too short for it to have left Athens in quantity, in which case it would disappear in Attica because of its excellence. After the darics of Persia entered Athens in the years following the war, Gresham's law would become operative as against them too, since the standard of the daric was slightly lower than that of the Athenian coins.

In conclusion, it is generally agreed that the disintegration of the Athenian empire beginning in 432, getting a further impetus through the activity of Brasidas in 425-4, and becoming more general

after 412, resulted in the break-up of the monetary system imposed by Athens upon her subjects.¹ Toward the end of the Peloponnesian War, Spartan fleets were often on the coast of Thrace and the sailors must be paid with money with which they had been familiar.² Furthermore Persian power was growing and the Persian silver standard was "coming in on certain lines of trade" in the last decade of the century.³ No one was imitating Athens, with the possible exception of Maroneia, Abdera, and the Odrysian princes, about 430. On the contrary, after 425-4, that year of misfortune to Athens, no city adopted the Attic standard for silver, and the majority of them rejected it certainly before the end of the century and most of them before 406. Furthermore the gold coins of Athens can not have been well known anywhere outside of Athens before the spring of the year in which the empire went to pieces, while the darics had been known long and favorably and had been distributed in quantities to the Greek allies of the Persian king in the very years when the gold coinage of the Thracian cities appeared. This would be just as true after 406 as before. Thus our explanation of the gold coinage of the Thracian coast is in perfect accord with our knowledge of political and commercial conditions there during the last

¹ Gardner, *Anc. Coinage*, 323.

² *Ibid.*, 279.

³ *Ibid.*, 280.

THRACIAN COAST GOLD COINS 183

years of the fifth century. Persia rather than Athens furnished the models. The gold Owls came too late to compete with the gold Archers.

ERRATA

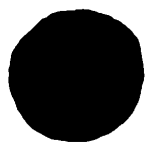
- Page 15, line 26, *for 9 read 10.*
Page 15, line 1 of footnote, *for p. 46 read p. 21.*
Page 16, line 7, *for 1.71 read 1.65, under Av. wts.*
Page 16, line 8, *for 2 read 3, under No. of issues.*
Page 18, footnote 3 after 31a, *add*, and p. 40, fig. 2.
Page 20, line 2 from bottom, *for seventy-nine read eighty-one.*
Page 21, line 3, *for 12 read 13.*
Page 21, line 4, *for 11 read 12.*
Page 21, line 10, *for 79 read 81.*
Page 22, line 7, *for seven read eight.*
Page 22, line 8, *for 1.60 read 1.49.*
Page 23, line 19, *for following read succeeding.*
Page 27, footnote 2, line 1, *for coin read coins.*
Page 27, footnote 2, line 1, *after gm add and 3.935.*
Page 27, footnote 2, line 1, *for has read have.*
Page 27, footnote 2, line 2, *after Pl. I add 10 \mathcal{N} and.*
Page 64, move Weight 14.07 on last line to line above and substitute on last line.
Page 68, line 21, *for seven read eight.*
Page 68, line 22, *for twelve read thirteen.*
Page 73, footnote 2, after Metrodotos, *add* (No. 39).
Page 73, for footnote 3 *read*, See pages 116 f. below.
Page 77, line 17, *after fifteen add years.*
Page 77, line 18, *delete about, and for sixteen read seventeen.*
Page 77, line 18, *for twenty-two read twenty-three.*
Page 83, line 9, *for other read others 12.70 gm. and.*
Page 85, footnote 1, *for 33 read 58.*
Page 85, footnote 2 line 2, after *Griech.*, *add* II, 1.,.
Page 88, line 2 of table, *delete*, wts.
Page 92, line 23, start last sentence *with* But, and, *for* Before *read* before; *delete* recent.
Page 109, table at bottom of page, *after* Empedocles *add* Letters H-P on obverse. Reverse as above.
Page 126, last line of footnote, *for 66 read 123.*
Page 142, transpose line 14 to come after line 17.
Page 151, footnote 2, *delete Ibid.*, and begin *with*, Strack, *op. cit.*, pp.
Page 160, footnote 2, line 2, *delete* (Pl. I, L).



THRACIAN GOLD



1N



3N



9N



10N



23N



35N



D



E



F



G

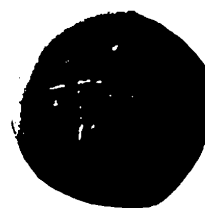


PLATE I



30N



A



B



C



L



M



H



I



J



K



THASOS



1N



1a



2d



2k



5a



7b



7c



8a



PLATE II



3A



3b



4a



6a



9a



9N

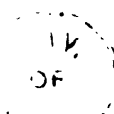


10A



11d





THASOS



12b



13A



13α



14a



17b



18A



19a



20A



PLATE III



15a



16A



16a



16b



20A



20a



21b



22a



THASOS



23a



23N



23α



23β



29B



25a



26c



27a



PLATE IV



24α



29α



30N



31α



29B



28A



28d



32A



THASOS



33A



34B



35A



38A



39A



40a



PLATE V



36B



37A



37C



42a



43b



45A



THASOS



47a



47c



50



51



54



55



56



57



58



PLATE VI



52



53



46a



46b



59



60



61



62





MARONEIA

A1



A2



A2



1a

P1



2

P2



3

P3



A3



A3



A4



7

P7



8

P8



9

P9



PLATE VII



4a



5a



6a



10



11b



12





MARONEIA

A8



13a

A9



14

A10



15

P13



P14



P15



A14



19

A14



20

A15



21

P19



P20



P21



PLATE VIII



16



17



18



22



23



24a



MARONEIA

A19



25

A20



26a

A21



27

P25



P26



P27



A24



31

A24



32

A25



33

P31



P32



P32



PLATE IX

A22



28

A23



29

A24



30a

P28



P29



P30



A25



34a

A25



35a

A25



36

P31



P33



P34



MARONEIA

A26



37

A27



38

A28



39

P35



P36



P36



A31



43

A31



44b

A32



45a

P39



P40



P41



PLATE X

A28



40a

A29



41

A30



42

P34



P37



P38



A33



46

A34



47a

A14



62a

P42



P43



P14





MARONEIA

A3



51

A4



52c

A5



53

P3



P3



P4



A9



57a

A10



58

A12



60

P8



P9



P11



PLATE XI



54



55a



56



61



62



63a





MARONEIA



65



66a



66b



68



69a



70a



PLATE XII

A1



66c

A2



67a

A2



67b

P2



P3



P3



A5



72

A6



73

A7



74

P6



P7



P8



MARONEIA



76a



77



79a



84a



87



90a



PLATE XIII



80



81



82



94a



98



100



MARONEIA



102a



104b



105



122



123



124b



PLATE XIV



111a



119



120



125a



126



131



MARONEIA



133a



134



135



138b



143a



150d



PLATE XV



137



136b



139



155



156b



148





MARONEIA



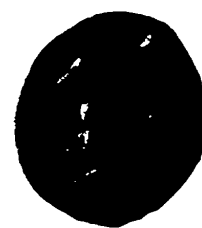
161



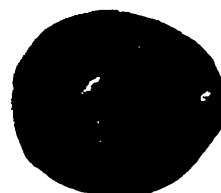
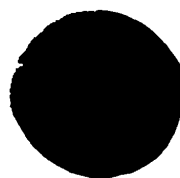
162a



163



164



179b



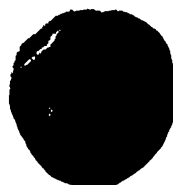
180



175a



175b



173a



171a

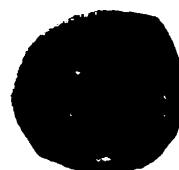


PLATE XVI



165a



165b



169



170a



182b



183b



174a



176b



177b



178b



CJ
35
.N9

NUMISMATIC NOTES AND MONOGRAPHS

No. 41



THE LEPER COLONY CURRENCY OF CULION

BY
GILBERT S. PEREZ

THE AMERICAN NUMISMATIC SOCIETY
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The American Numismatic Society. **Exhibition of United States and Colonial Coins.** 1914. vii, 134 pages, 40 plates. \$1.00.

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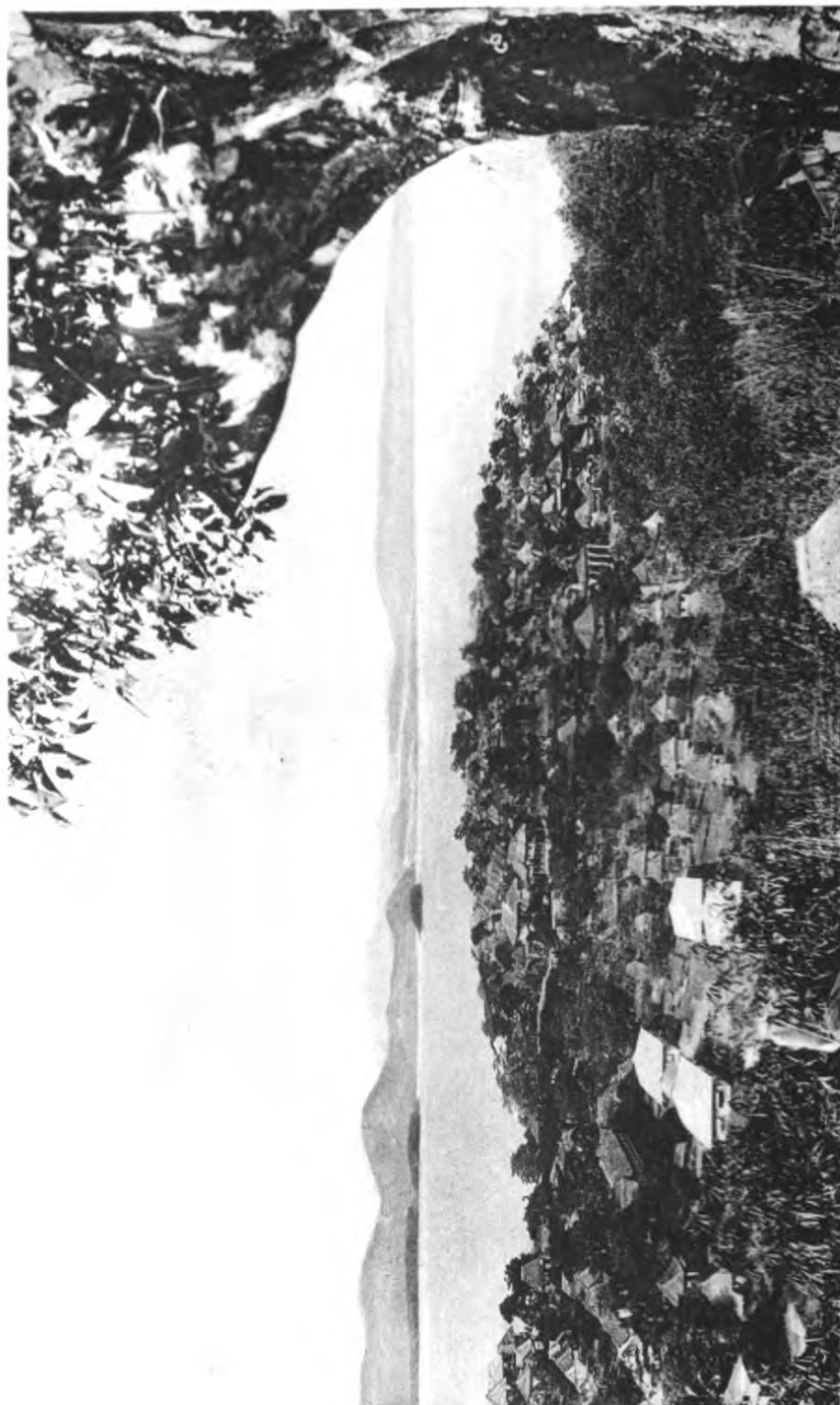
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VIEW OF CULION LEPER COLONY, CULION, PHILIPPINE ISLANDS.

Original from
UNIVERSITY OF MICHIGAN

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1929

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THE LEPER COLONY CURRENCY OF CULION

BY GILBERT S. PEREZ

The interest of the people of this country during the past year has been directed to the condition of the sufferers from leprosy in the Philippine Islands, through a successful campaign for funds to aid the doctors charged with stamping out this terrible disease. There is every reason to believe that a few years will see great changes there, and that after the efforts now to be instituted shall have achieved their high aim, there will come a time when the currency used in Culion will have become another of the records of bygone things whose facts and whose past are called to mind by coins the intrinsic value of which is far surpassed by their historical significance.

Nothing will bring to the mind of the outside world the absolute isolation of the leper patients of Culion so vividly as the currency which the Philippine Government has issued for the use of the inhabitants of that lonely island in the China Sea. In that spot about 5,300 patients await the time when death shall have made an end to their suffering or medical skill afforded them the much desired negative test which restores them to their

2 LEPER COLONY CURRENCY

homes and to their loved ones. Strangely enough in 1923, of the 34 who were released from Culion, three decided to remain in the colony. Perhaps it was because they foresaw the glances of fear and horror they would receive from friends and neighbors when they returned to their homes, officially cured but still carrying with them the stigma of the living death from which they had recently escaped.

The most extensively used drug in Culion is the iodized ethyl ester which may be considered as the standard compound for fighting the disease. If treatment is taken shortly after the appearance of the symptoms, the chances for recovery are very bright. During 1922, more than 500 were declared negative, of which 292 were paroled or discharged and the rest kept under a two-year period of observation. Leprosy is no respecter of persons and the patients on the island include ex-governors, lawyers, doctors, teachers, and men of wealth as well as laborers.

Although the Culion Leper Colony was established in May, 1906, the first issue of coins was not placed in circulation until 1913. This issue was struck in aluminum in the die establishment of Frank & Co., Manila. The design is a simple one, the coins resembling the ordinary hacienda token. On the obverse is the caduceus; around this is the legend "Bureau of Health," with the date 1913 between two stars. On the reverse

appears the value numeral surrounded by the legend "Culion Leper Colony Philippine Islands." The denominations struck were the $\frac{1}{2}$ -centavo, 5-centavo, 10-centavo, 20-centavo, and the peso all made of aluminum.

The second issue (1920) of similar design and also struck in aluminum comprises the 10-centavo, 20-centavo and peso. These were coined at the government mint at Manila.

As aluminum deteriorates very easily in a tropical climate, and because of the corrosive effect of the disinfectants in use, it was found advisable to change to an alloy of copper and nickel for this currency, the proportion being 75% of copper and 25% of nickel.

The third issue consists of the twenty-centavo of nickel and one-peso pieces struck in nickel bronze; it was instituted in 1922.

In 1925, a radical change was made in the design and the coins now have the appearance of a regular currency. The obverse shows the bust of Dr. José Rizal, the Filipino patriot who was executed in Manila in 1896; the reverse the new seal of the Philippine Health Service. One denomination only, the peso, was struck by the Philippine Mint.

In 1927, one-centavo and 5-centavo pieces were minted. The effigy of Mabini was used in the one-centavo piece and that of Rizal in the five-centavo piece. While these coins were being

4 LEPER COLONY CURRENCY

struck at the Manila mint, the die of the one-centavo piece was broken and had to be replaced. Nearly all of these coins were defaced and melted and a new die made. The last die was less carefully executed—it shows only one button on the coat instead of the two buttons of the broken die.

In 1925, Director of Health Fajardo recommended that the special coins in circulation at the Culion Leper Colony be adopted for the inmates of the Manila Leprosarium. Insular Auditor Wright objected on the ground of illegality. He said, however, that should the Attorney General rule otherwise he would be perfectly willing to abide by the decision. On April 20, 1926, Attorney General Jaranilla announced his opinion that Director Fajardo's plan would not violate Section 13 of Act No. 1754 which prohibits the use of tokens. Two thousand 10-centavo pieces and 1,500 of the peso pieces of the third issue were transferred from the Culion Leper Colony to the San Lazaro Hospital. On October 23, 1926, 2,000 of the 10-centavo and 1,500 of the one-peso of the third issue were transferred from Culion to San Lazaro. On August 12, 1927, 10,000 of the new one-centavo piece and 6,000 of the new five-centavo piece were issued to the San Lazaro Hospital.

The Mint and Health officials did not take cognizance of the similarity in size between the

regular five-centavo nickel and the one-centavo leper coins and it is not uncommon to find in circulation, a leper colony one-centavo piece which has netted the inmate of San Lazaro a profit of four centavos. It is, therefore, very probable that these will be recalled and a coin of different size issued by the Health Bureau and the Philippine Mint.

On July the first, the following regulations governing the use of special Culion coins were issued by the Bureau of Health:

**“PHILIPPINE HEALTH SERVICE CULION
LEPER COLONY”**

**REGULATIONS GOVERNING THE USE OF
SPECIAL CULION CURRENCY**

“As a sanitary measure and with a view to stopping the circulation of special currency at present observed among the non-lepers in Culion and elsewhere who have commercial dealings with the inmates of the Colony; and also the circulation of the Philippine currency inside the Colony proper, the following regulations are hereby issued to take effect July 1, 1925:

- (1) In all money transactions in the non-leper settlement, only the Philippine currency shall be used.
- (2) In the Colony proper, the legal currency shall be the special currency, commonly known as

6 LEPER COLONY CURRENCY

"leper money," expressly made for the exclusive use of the inmates thereof.

(3) All non-lepers having special currency in their possession should exchange same for Philippine currency at the office of the Disbursing Officer during work days (except Sundays and legal holidays).

(4) All those inmates having Philippine currency in their possession should exchange same for special currency at the Culion Store in the Colony proper during work days (except Sundays and legal holidays).

(5) All exchanges shall be made at par value.

(6) The use of Philippine currency for the payment of any kind of transaction, commercial or otherwise, to the inmates themselves or to non-lepers, is not permitted inside the Colony proper. Likewise, the circulation of special currency in Balala, Jardin and Culañgo is strictly prohibited, said circulation being absolutely confined within the Colony.

(7) Any non-leper vendor desiring to sell merchandise to the inmates, such as foodstuffs, building materials, etc., shall first obtain the necessary permit to do so from the Chief of the Colony, or his authorized agent, which permit may be issued him with the understanding that such vendor shall strictly comply with the existing regulations governing currency.

(8) All payments from such commercial transactions with the inmates shall be made in special currency which should be deposited with the authorized representative of the Disbursing Officer to be found at the gate, who shall issue a receipt for the amount received. This receipt may be presented at the office of the Disbursing Officer for exchange with Philippine currency.

LEPER COLONY CURRENCY 7

(9) The Chief of Police and his agents should see that provisions of these regulations are strictly complied with. They are empowered to arrest or to report to the proper authorities any person violating any of the provisions hereof.

(10) Any person found violating any of the provisions of these regulations shall be punished by a fine of not more than FIFTEEN PESOS (15), or imprisonment not to exceed ONE MONTH, or BOTH.

JACOBO FAJARDO
Director of Health

Approved:

E. A. GILMORE
Secretary of Public Instruction

The Japanese government has made a special study of the Culion Leper Colony and has established a similar colony in Japan. All of the rules and regulations pertaining to the Culion colony have been adopted by the Japanese government in the administration of the Japanese Leper Colony. A set of the Japanese colony tokens varying in size and shape, of japanned brass are illustrated on Plate III.

8 LEPER COLONY CURRENCY

NUMBER OF COINS MINTED

<i>First Issue—1913</i>	<i>Denomination</i>	<i>Pieces</i>	<i>Pesos</i>
	$\frac{1}{2}$ -centavo	17,000	85
	1-centavo	32,500	325
	5 “	6,600	330
	10 “	6,600	660
	20 “	10,000	2,000
	1-peso	8,600	8,600

Aluminum—Struck by Frank & Co., Manila

<i>Second Issue—1920</i>	10-centavo	20,000	2,000
	20 “	10,000	2,000
	1-peso	4,000	4,000

Aluminum—Struck at the Philippine Mint

<i>Third Issue—1922</i>	20-centavo	10,155	2,031
	1-peso	8,280	8,280

Nickel Bronze—Struck at the Philippine Mint

<i>Fourth Issue—1925</i>	1-peso	20,000	20,000
<i>Fifth Issue—1927</i>	1-centavo	30,000	300
	5 “	16,000	800

Nickel Bronze—Struck at the Philippine Mint

There are two varieties of these 1927 coins, one is well executed with the legend “For a healthy nation” in the ribbon under the seal of the Bureau of Health. In the new die of this issue the ribbons show no inscription.

COMPLETE LIST OF COINS STRUCK
TO DATE

1. Peso. Obv. in center 1 Peso, surrounded by the legend, CULION LEPER COLONY and PHILIPPINE ISLANDS. Rev., Caduceus with legend, BUREAU OF HEALTH, * 1913.* Aluminum. Plate I.

2. 20-centavo. Obv. similar to No. 1, but with value 20 CENTAVOS. Rev. similar, but letters without serifs. Aluminum. Plate I.

3. 10-centavo. Obv. similar to No. 1, but with value 10 CENTAVOS. Rev. similar to No. 1. Aluminum. Plate I.

4. 5-centavo. Obv. similar to No. 1, but with value 5 CENTAVOS. Rev. similar to No. 1. Aluminum. Plate I.

5. 1-centavo. Obv. similar to No. 1, but with value 1 CENTAVO. Rev. similar to No. 2. Aluminum. Plate II.

6. $\frac{1}{2}$ -centavo. Obv. similar to No. 1, but with value $\frac{1}{2}$ CENTAVO. Rev. similar to No. 2. Aluminum. Plate II. Philippine Mint.

7. 1-peso. Obv. similar to No. 1, but dated 1920. Aluminum. Plate II.

8. 20-centavo. Obv. similar to No. 2, but dated 1920.

9. 10-centavo. Obv. similar to No. 3, but dated 1920.

10 LEPER COLONY CURRENCY

10. 1-peso. Obv. similar to No. 1. Small incuse in field, PM (Philippine Mint). Rev. PHILIPPINE HEALTH SERVICE 1922 surrounding caduceus. Nickel bronze. Plate II.

11. 20-centavo. Obv. similar to No. 2, but value 20 CENTAVOS. Rev. similar to No. 10. Nickel bronze.

12. 1-peso. Obv. bust of José Rizal. Legend, CULION LEPER COLONY PHILIPPINE ISLANDS. Rev. PHILIPPINE HEALTH SERVICE *1925 ONE PESO.* In center, seal of the Health Service. Nickel bronze. Plate III.

13. 5-centavo. Obv. similar to No. 12, but letters without serifs. Rev. similar to No. 11, but 5 CENTAVOS instead of 1 peso and date 1927. Nickel bronze, rare. Plate III.

14. Similar but less carefully executed. No inscription in the ribbon under the seal. Nickel bronze.

15. 1-centavo. Obv. similar to No. 12, but with bust of Mabini. Rev. similar to No. 13, but with value ONE CENTAVO. Excessively rare. Nickel bronze. Plate III.

16. Similar to No. 15, but less carefully executed—no inscription in ribbon. Nickel bronze.

CULION LEPER CURRENCY

PLATE I



-1-



-2-



-3-



-4-



-5-



-6-



-7-



-10-





-12-



15

-13-



15



JAPANESE LEPER TOKENS.

NUMISMATIC NOTES AND MONOGRAPHS

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19. Edward T. Newell. Alexander Hoards—II. Demanhur Hoard. 1923. 162 pp. 8 pls. \$2.50.
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21. Edward T. Newell. Alexander Hoards—III. Andritsaena. 1924. 39 pp. 6 pls. \$1.00.
22. C. T. Seltman. A Hoard from Side. 1924. 20 pp. 3 pls. \$1.00.

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25. Sydney P. Noe. A Bibliography of Greek Coin Hoards. 1925. 275 pp. \$2.50.
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